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FULL ESTIMATED COST	0.45	0.66

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COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	0.45	0.66

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STRUCTURE FILE UPDATES: 1 MAY 2007 HIGHEST RN 934050-43-8
DICTIONARY FILE UPDATES: 1 MAY 2007 HIGHEST RN 934050-43-8

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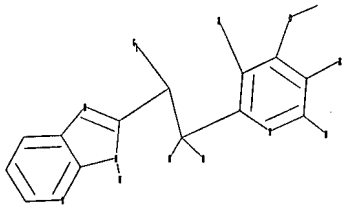
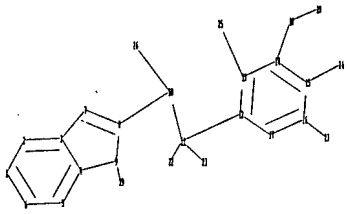
=>
Uploading C:\Program Files\Stnexp\Queries\10573203.str





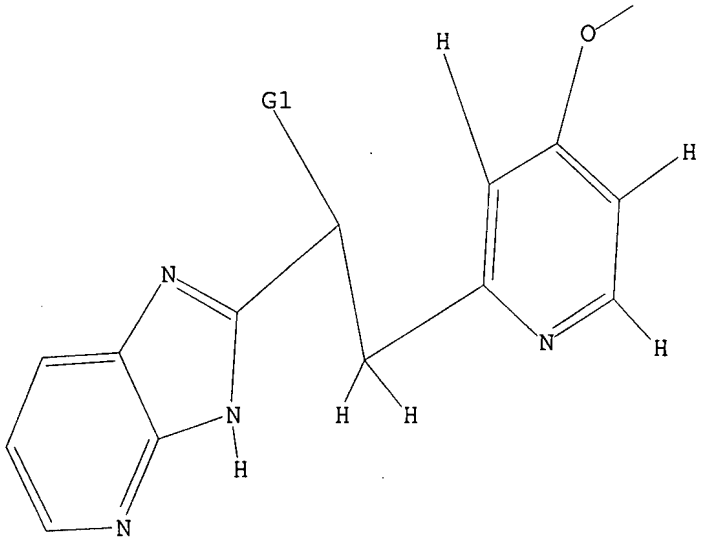
chain nodes :
10 11 18 19 21 22 23 24 25 26 28
ring nodes :
1 2 3 4 5 6 7 8 9 12 13 14 15 16 17
chain bonds :
8-10 9-19 10-11 10-26 11-12 11-21 11-22 13-25 14-18 15-24 16-23 18-28
ring bonds :
1-2 1-6 2-3 3-4 3-7 4-5 4-9 5-6 7-8 8-9 12-13 12-17 13-14 14-15 15-16
16-17
exact/norm bonds :
3-7 4-9 7-8 8-9 10-26 14-18 18-28
exact bonds :
8-10 9-19 10-11 11-12 11-21 11-22 13-25 15-24 16-23
normalized bonds :
1-2 1-6 2-3 3-4 4-5 5-6 12-13 12-17 13-14 14-15 15-16 16-17
isolated ring systems :
containing 1 : 12 :

G1:C,H

Match level :
1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:Atom 8:Atom 9:Atom 10:CLASS
11:CLASS 12:Atom 13:Atom 14:Atom 15:Atom 16:Atom 17:Atom 18:CLASS 19:CLASS
21:CLASS 22:CLASS 23:CLASS 24:CLASS 25:CLASS 26:CLASS 28:CLASS

L1 STRUCTURE UPLOADED

=> d l1
L1 HAS NO ANSWERS
L1 STR



G1 C,H

Structure attributes must be viewed using STN Express query preparation.

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SAMPLE SEARCH INITIATED 10:56:02 FILE 'REGISTRY'
SAMPLE SCREEN SEARCH COMPLETED - 13 TO ITERATE

100.0% PROCESSED 13 ITERATIONS 5 ANSWERS
SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS: ONLINE **COMPLETE**
BATCH **COMPLETE**
PROJECTED ITERATIONS: 44 TO 476
PROJECTED ANSWERS: 5 TO 234

L2 5 SEA SSS SAM L1

=> s l1 full
FULL SEARCH INITIATED 10:56:07 FILE 'REGISTRY'
FULL SCREEN SEARCH COMPLETED - 256 TO ITERATE

100.0% PROCESSED 256 ITERATIONS 133 ANSWERS
SEARCH TIME: 00.00.01

L3 133 SEA SSS FUL L1

=> file caplus
COST IN U.S. DOLLARS SINCE FILE ENTRY TOTAL SESSION
FULL ESTIMATED COST 172.10 172.76

FILE 'CAPLUS' ENTERED AT 10:56:11 ON 02 MAY 2007

FILE COVERS 1907 - 2 May 2007 VOL 146 ISS 19
FILE LAST UPDATED: 1 May 2007 (20070501/ED)

=> s l3 full
L4 7 L3

=> d ibib abs hitstr tot

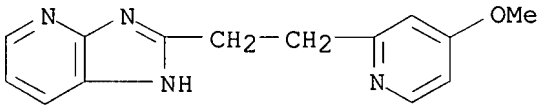
L4 ANSWER 1 OF 7 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2006:341554 CAPLUS
DOCUMENT NUMBER: 144:381708
TITLE: In vivo characterization of the novel imidazopyridine BYK191023 [2-[2-(4-methoxy-pyridin-2-yl)-ethyl]-3H-imidazo[4,5-b]pyridine], a potent and highly selective inhibitor of inducible nitric-oxide synthase
AUTHOR(S): Lehner, Martin D.; Marx, Degenhard; Boer, Rainer; Strub, Andreas; Hesslinger, Christian; Eltze, Manfrid; Ulrich, Wolf-Ruediger; Schwoebel, Frank; Schermuly, Ralph Theo; Barsig, Johannes
CORPORATE SOURCE: Department of Pharmacology, ALTANA Pharma AG, Konstanz, Germany
SOURCE: Journal of Pharmacology and Experimental Therapeutics (2006), 317(1), 181-187
CODEN: JPETAB; ISSN: 0022-3565
PUBLISHER: American Society for Pharmacology and Experimental Therapeutics
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Excessive release of nitric oxide from inducible nitric-oxide synthase (iNOS) has been postulated to contribute to pathol. in a number of inflammatory diseases. We recently identified imidazopyridine derivs. as a novel class of potent nitric-oxide synthase inhibitors with high selectivity for the inducible isoform. In the present study, we tested the in vivo potency of BYK191023 [2-[2-(4-methoxy-pyridin-2-yl)-ethyl]-3H-imidazo[4,5-b]pyridine], a selected member of this inhibitor class, in three different rat models of lipopolysaccharide-induced systemic inflammation. Delayed administration of BYK191023 dose-dependently suppressed the lipopolysaccharide-induced increase in plasma nitrate/nitrite (NOx) levels with an ED50 of 14.9 μmol/kg/h. In a model of systemic hypotension following high-dose lipopolysaccharide challenge, curative administration of BYK191023 at a dose that inhibited 83% of the NOx increase completely prevented the gradual decrease in mean arterial blood pressure observed in vehicle-treated control animals. The vasopressor effect was specific for endotoxemic animals since BYK191023 did not affect blood pressure in saline-challenged controls. In addition, in

a model of lipopolysaccharide-induced vascular hyporesponsiveness, BYK191023 infusion partially restored normal blood pressure responses to norepinephrine and sodium nitroprusside via an L-arginine competitive mechanism. Taken together, BYK191023 is a member of a novel class of highly isoform-selective iNOS inhibitors with promising in vivo activity suitable for mechanistic studies on the role of selective iNOS inhibition as well as clin. development.

IT 608880-48-4, BYK191023
RL: DMA (Drug mechanism of action); PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(in vivo characterization of inducible nitric-oxide synthase inhibitor imidazopyridine BYK191023)

RN 608880-48-4 CAPLUS

CN 1H-Imidazo[4,5-b]pyridine, 2-[2-(4-methoxy-2-pyridinyl)ethyl]- (9CI) (CA INDEX NAME)



REFERENCE COUNT: 39 THERE ARE 39 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 2 OF 7 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2006:43156 CAPLUS

DOCUMENT NUMBER: 144:163527

TITLE: The novel imidazopyridine 2-[2-(4-Methoxy-pyridin-2-yl)-ethyl]-3H-imidazo[4,5-b]pyridine (BYK191023) is a highly selective inhibitor of the inducible nitric-oxide synthase

AUTHOR(S): Strub, Andreas; Ulrich, Wolf-Ruediger; Hesslinger, Christian; Eltze, Manfrid; Fuchss, Thomas; Strassner, Jochen; Strand, Susanne; Lehner, Martin D.; Boer, Rainer

CORPORATE SOURCE: Departments of Biochemistry, Chemistry and Pharmacology, ALTANA Pharma AG, Konstanz, Germany

SOURCE: Molecular Pharmacology (2006), 69(1), 328-337
CODEN: MOPMA3; ISSN: 0026-895X

PUBLISHER: American Society for Pharmacology and Experimental Therapeutics

DOCUMENT TYPE: Journal

LANGUAGE: English

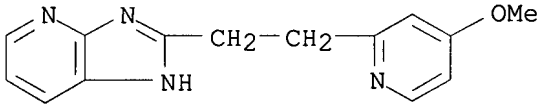
AB We have identified imidazopyridine derivs. as a novel class of NO synthase inhibitors with high selectivity for the inducible isoform. 2-[2-(4-Methoxy-pyridin-2-yl)-ethyl]-3H-imidazo[4,5-b]pyridine (BYK191023) showed half-maximal inhibition of crudely purified human inducible (iNOS), neuronal (nNOS), and endothelial (eNOS) NO synthases at 86 nM, 17 μM, and 162 μM, resp. Inhibition of inducible NO synthase was competitive with L-arginine, pointing to an interaction of BYK191023 with the catalytic center of the enzyme. In radioligand and surface plasmon resonance expts., BYK191023 exhibited an affinity for iNOS, nNOS, and eNOS of 450 nM, 30 μM, and >500 μM, resp. Inhibition of cellular nitrate/nitrite synthesis in RAW, rat mesangium, and human embryonic kidney 293 cells after iNOS induction showed 40- to 100-fold higher IC50 values than at the isolated enzyme, in agreement with the much higher L-arginine concns. in cell culture media and inside intact cells. BYK191023 did not show any toxicity in various rodent and human cell lines up to high micromolar concns. The inhibitory potency of BYK191023 was tested in isolated organ models of iNOS (lipopolysaccharide-treated and phenylephrine-precontracted rat aorta; IC50 = 7 μM), eNOS (arecaidine propargyl ester-induced relaxation of phenylephrine-precontracted rat aorta; IC50 > 100 μM), and nNOS (field-stimulated relaxation of

phenylephrine-precontracted rabbit corpus cavernosum; IC50 > 100 μM). These data confirm the high selectivity of BYK191023 for iNOS over eNOS and nNOS found at isolated enzymes. In summary, we have identified a new highly selective iNOS inhibitor structurally unrelated to known compds. and L-arginine. BYK191023 is a valuable tool for the investigation of iNOS-mediated effects in vitro and in vivo.

IT 608880-48-4, BYK 191023
RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(structure activity relationship studied of imidazopyridine compds. as selective inhibitors of nitric-oxide synthase isoforms)

RN 608880-48-4 CAPLUS

CN 1H-Imidazo[4,5-b]pyridine, 2-[2-(4-methoxy-2-pyridinyl)ethyl]- (9CI) (CA INDEX NAME)

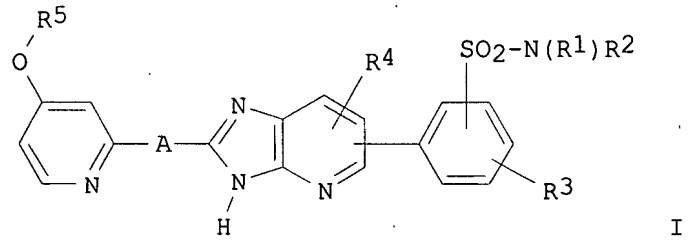


REFERENCE COUNT: 40 THERE ARE 40 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 3 OF 7 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2005:300447 CAPLUS
DOCUMENT NUMBER: 142:373838
TITLE: Preparation of imidazopyridine derivatives as inducible NO-synthase inhibitors
INVENTOR(S): Fuchss, Thomas; Martin, Thomas; Boer, Rainer; Strub, Andreas; Eltze, Manfrid; Lehner, Martin; Ulrich, Wolf-Ruediger
PATENT ASSIGNEE(S): Altana Pharma A.-G., Germany
SOURCE: PCT Int. Appl., 34 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2005030771	A1	20050407	WO 2004-EP52378	20040930
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
AU 2004276015	A1	20050407	AU 2004-276015	20040930
CA 2540083	A1	20050407	CA 2004-2540083	20040930
EP 1675854	A1	20060705	EP 2004-787263	20040930
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, PL, SK, HR				
CN 1856491	A	20061101	CN 2004-80027592	20040930
BR 2004014972	A	20061107	BR 2004-14972	20040930
JP 2007507467	T	20070329	JP 2006-530264	20040930
NO 2006001344	A	20060324	NO 2006-1344	20060324
US 2007043073	A1	20070222	US 2006-573484	20060324

IN 2006MN00475 A 20070316 IN 2006-MN475 20060424
PRIORITY APPLN. INFO.: EP 2003-22053 A 20031001
WO 2004-EP52378 W 20040930
OTHER SOURCE(S): CASREACT 142:373838; MARPAT 142:373838
GI



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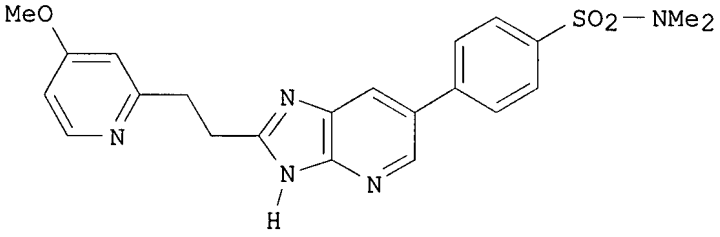


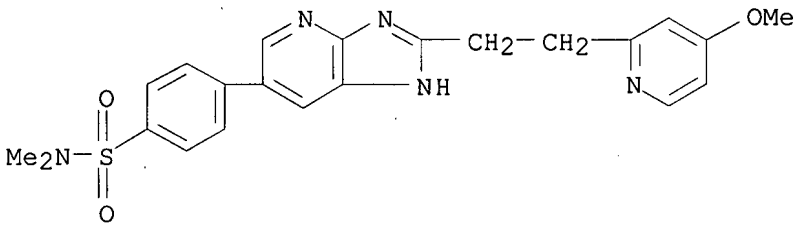
II

AB Title compds. I [R1 = H, alkyl; R2 = H, alkyl; R3 = H, halo; R4 = H, halo, alkyl, alkoxy; R5 = alkyl; A = alkylene] and their resp. pharmaceutically acceptable salts, are prepared and disclosed as inducible no-synthase inhibitors. Thus, e.g., II was prepared via Suzuki coupling of 2-[2-(4-methoxypyridin-2-yl)ethyl]-6-iodo-3H-imidazo[4,5-b]pyridine (preparation given) with N,N-dimethyl-4-bromobenzenesulfonamide. The activity of I towards inducible NO-synthase was evaluated in inhibition assays and revealed -logIC50 values in the range of 7.45 up to 7.86 mol/L. I as inducible NO-synthase inhibitors should prove useful in the treatment of acute and chronic inflammatory diseases.

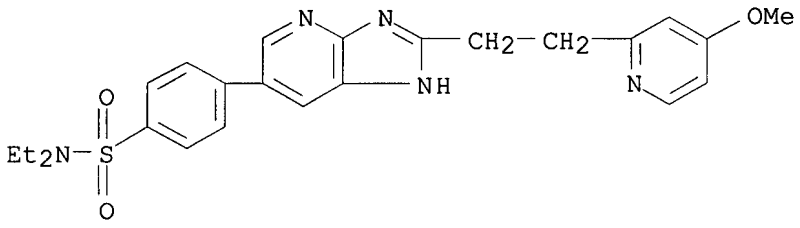
IT 849357-47-7P 849357-48-8P 849357-49-9P
849357-50-2P 849357-51-3P 849357-52-4P
849357-54-6P 849357-55-7P 849357-56-8P
849357-57-9P 849357-58-0P 849357-59-1P
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(preparation of imidazopyridine derivs. as inducible NO-synthase inhibitors)

RN 849357-47-7 CAPLUS

CN Benzenesulfonamide, 4-[2-[2-(4-methoxy-2-pyridinyl)ethyl]-1H-imidazo[4,5-b]pyridin-6-yl]-N,N-dimethyl- (9CI) (CA INDEX NAME)



RN 849357-48-8 CAPLUS
CN Benzenesulfonamide, N,N-diethyl-4-[2-[2-(4-methoxy-2-pyridinyl)ethyl]-1H-imidazo[4,5-b]pyridin-6-yl]- (9CI) (CA INDEX NAME)



RN 849357-49-9 CAPLUS
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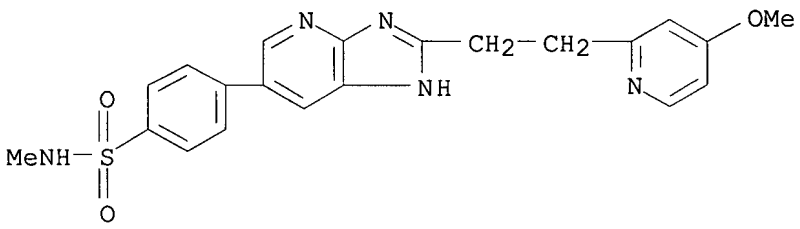
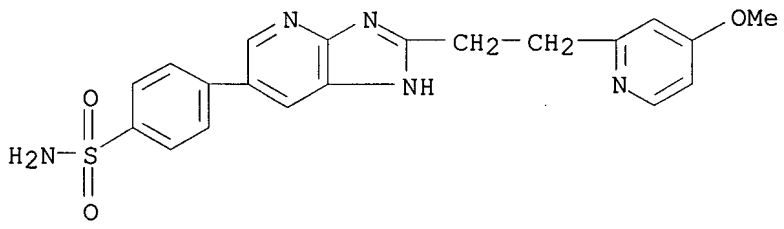
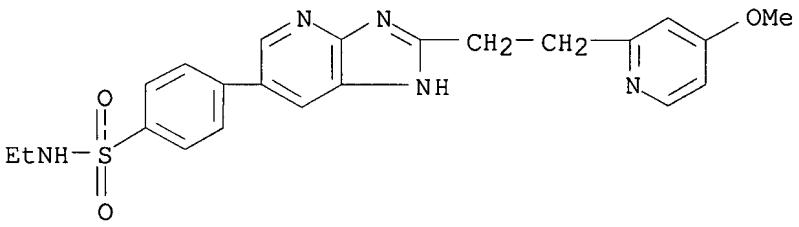


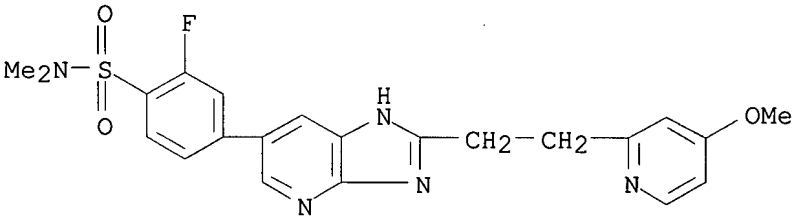
RN 849357-50-2 CAPLUS
CN Benzenesulfonamide, 4-[2-[2-(4-methoxy-2-pyridinyl)ethyl]-1H-imidazo[4,5-b]pyridin-6-yl]- (9CI) (CA INDEX NAME)



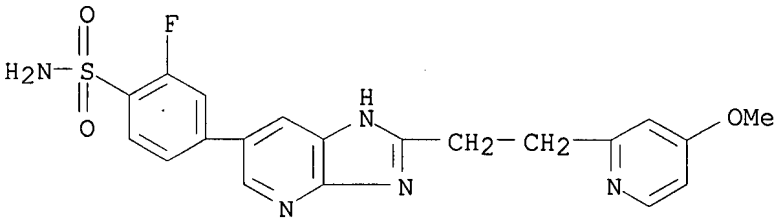
RN 849357-51-3 CAPLUS
CN Benzenesulfonamide, N-ethyl-4-[2-[2-(4-methoxy-2-pyridinyl)ethyl]-1H-imidazo[4,5-b]pyridin-6-yl]- (9CI) (CA INDEX NAME)



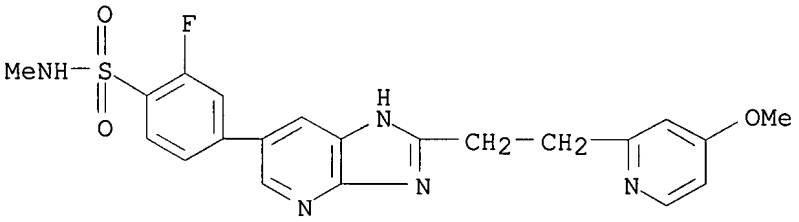
RN 849357-52-4 CAPLUS
CN Benzenesulfonamide, 2-fluoro-4-[2-[2-(4-methoxy-2-pyridinyl)ethyl]-1H-imidazo[4,5-b]pyridin-6-yl]-N,N-dimethyl- (9CI) (CA INDEX NAME)



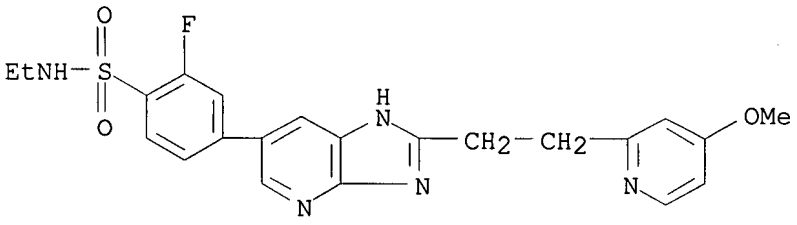
RN 849357-54-6 CAPLUS
CN Benzenesulfonamide, 2-fluoro-4-[2-[2-(4-methoxy-2-pyridinyl)ethyl]-1H-imidazo[4,5-b]pyridin-6-yl]- (9CI) (CA INDEX NAME)



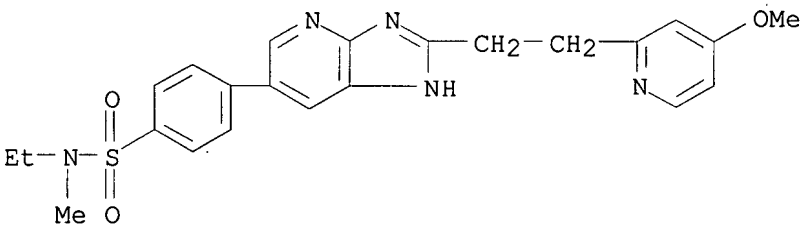
RN 849357-55-7 CAPLUS
CN Benzenesulfonamide, 2-fluoro-4-[2-[2-(4-methoxy-2-pyridinyl)ethyl]-1H-imidazo[4,5-b]pyridin-6-yl]-N-methyl- (9CI) (CA INDEX NAME)



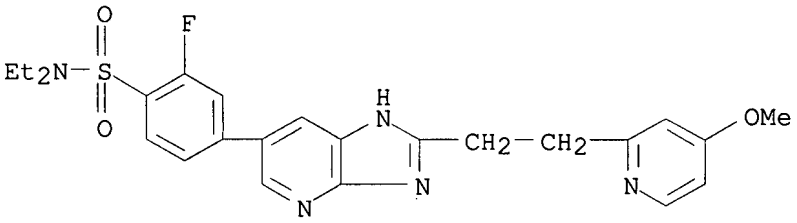
RN 849357-56-8 CAPLUS
CN Benzenesulfonamide, N-ethyl-2-fluoro-4-[2-[2-(4-methoxy-2-pyridinyl)ethyl]-1H-imidazo[4,5-b]pyridin-6-yl]- (9CI) (CA INDEX NAME)



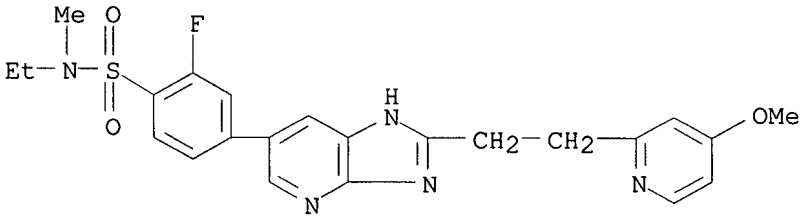
RN 849357-57-9 CAPLUS
CN Benzenesulfonamide, N-ethyl-4-[2-[2-(4-methoxy-2-pyridinyl)ethyl]-1H-imidazo[4,5-b]pyridin-6-yl]-N-methyl- (9CI) (CA INDEX NAME)



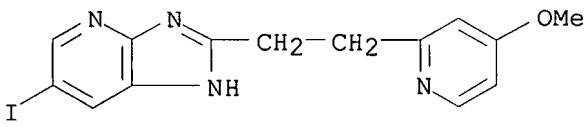
RN 849357-58-0 CAPLUS
CN Benzenesulfonamide, N,N-diethyl-2-fluoro-4-[2-[2-(4-methoxy-2-pyridinyl)ethyl]-1H-imidazo[4,5-b]pyridin-6-yl]- (9CI) (CA INDEX NAME)



RN 849357-59-1 CAPLUS
CN Benzenesulfonamide, N-ethyl-2-fluoro-4-[2-[2-(4-methoxy-2-pyridinyl)ethyl]-1H-imidazo[4,5-b]pyridin-6-yl]-N-methyl- (9CI) (CA INDEX NAME)



IT 608880-54-2P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation of imidazopyridine derivs. as inducible NO-synthase inhibitors)
RN 608880-54-2 CAPLUS
CN 1H-Imidazo[4,5-b]pyridine, 6-iodo-2-[2-(4-methoxy-2-pyridinyl)ethyl]- (9CI) (CA INDEX NAME)



REFERENCE COUNT: 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 4 OF 7 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2005:300446 CAPLUS
DOCUMENT NUMBER: 142:373837
TITLE: Preparation of imidazopyridine derivatives as inducible NO-synthase inhibitors
INVENTOR(S): Fuchss, Thomas; Martin, Thomas; Boer, Rainer; Strub, Andreas; Eltze, Manfrid; Lehner, Martin; Ulrich, Wolf-Ruediger
PATENT ASSIGNEE(S): Altana Pharma A.-G., Germany
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CODEN: PIXXD2
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LANGUAGE: English
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WO 2005030770	A1	20050407	WO 2004-EP52377	20040930
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
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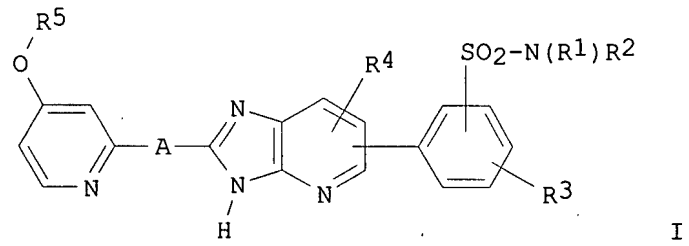
AU 2004276014	A1	20050407	AU 2004-276014	20040930
CA 2540243	A1	20050407	CA 2004-2540243	20040930
EP 1670796	A1	20060621	EP 2004-787262	20040930
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, PL, SK, HR				
CN 1856495	A	20061101	CN 2004-80027833	20040930
BR 2004014933	A	20061107	BR 2004-14933	20040930
JP 2007507466	T	20070329	JP 2006-530263	20040930
NO 2006001317	A	20060323	NO 2006-1317	20060323
US 2006293302	A1	20061228	US 2006-573202	20060324

PRIORITY APPLN. INFO.: EP 2003-22046 A 20031001
WO 2004-EP52377 W 20040930
OTHER SOURCE(S): CASREACT 142:373837; MARPAT 142:373837
GI



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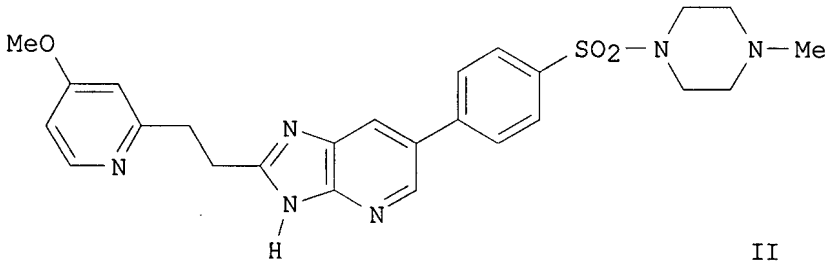

II

AB Title compds. I [R1 = H, alkyl, cycloalkyl, etc.; R2 = H, alkoxyalkyl, hydroxyalkyl, etc.; R3 = alkyl, CF3, completely or predominantly F-substituted alkoxy, etc.; R1 and R2 together = (un)saturated-, (un)substituted-nitrogen heterocycle; R4 = H, halo, alkyl, alkoxy; R5 = alkyl; A = alkylene] and their resp. pharmaceutically acceptable salts, are prepared and disclosed as inducible no-synthase inhibitors. Thus, e.g., II was prepared via Suzuki coupling of 2-[2-(4-methoxypyridin-2-yl)ethyl]-6-iodo-3H-imidazo[4,5-b]pyridine (preparation given) with 1-(4-bromo-benzene-sulfonyl)-4-methyl-piperazine. The activity of I towards inducible NO-synthase was evaluated in inhibition assays and revealed -logIC50 values in the range of 6.51 up to 7.89 mol/L. I as inducible NO-synthase inhibitors should prove useful in the treatment of acute and chronic inflammatory diseases.

IT 849530-66-1P 849530-68-3P 849530-70-7P
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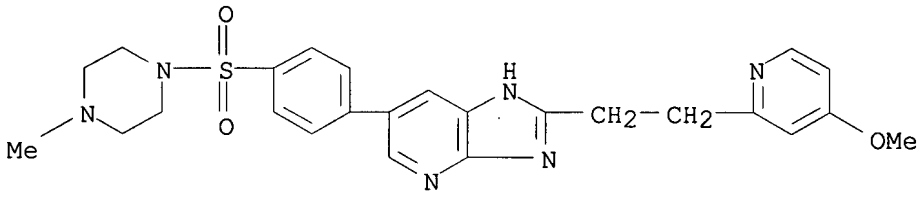
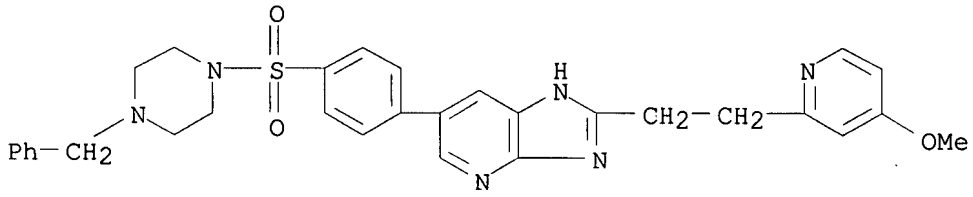
849532-00-9P
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES

(Uses)
(preparation of imidazopyridine derivs. as inducible NO-synthase inhibitors)

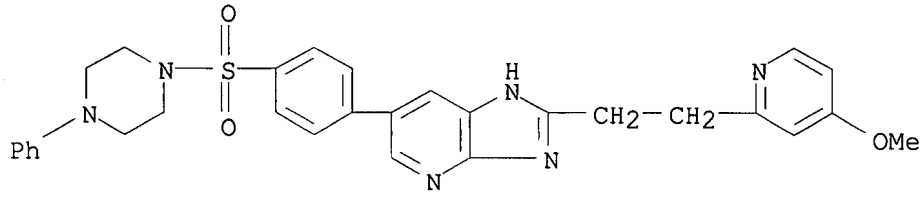
RN 849530-66-1 CAPLUS
CN Piperazine, 1-[[4-[2-[2-(4-methoxy-2-pyridinyl)ethyl]-1H-imidazo[4,5-b]pyridin-6-yl]phenyl]sulfonyl]-4-methyl- (9CI) (CA INDEX NAME)



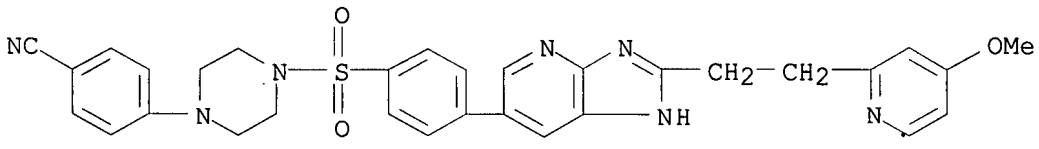
RN 849530-68-3 CAPLUS
CN Piperazine, 1-[[4-[2-[2-(4-methoxy-2-pyridinyl)ethyl]-1H-imidazo[4,5-b]pyridin-6-yl]phenyl]sulfonyl]-4-(phenylmethyl)- (9CI) (CA INDEX NAME)



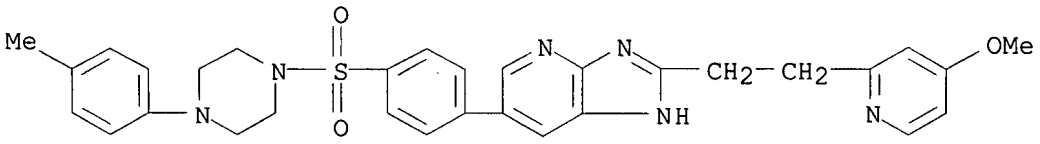
RN 849530-70-7 CAPLUS
CN Piperazine, 1-[[4-[2-[2-(4-methoxy-2-pyridinyl)ethyl]-1H-imidazo[4,5-b]pyridin-6-yl]phenyl]sulfonyl]-4-phenyl- (9CI) (CA INDEX NAME)



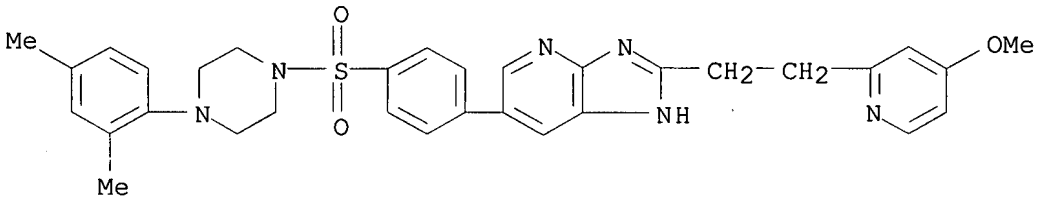
RN 849530-72-9 CAPLUS
CN Piperazine, 1-(4-cyanophenyl)-4-[[4-[2-[2-(4-methoxy-2-pyridinyl)ethyl]-1H-imidazo[4,5-b]pyridin-6-yl]phenyl]sulfonyl]- (9CI) (CA INDEX NAME)



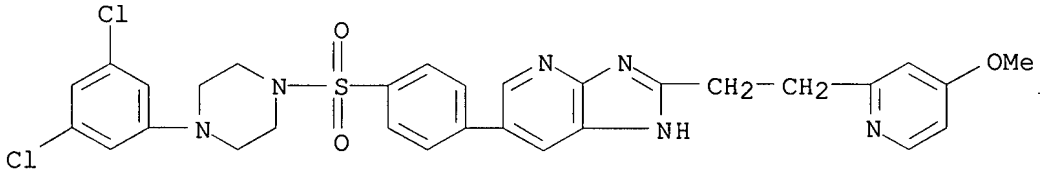
RN 849530-74-1 CAPLUS
CN Piperazine, 1-[[4-[2-[2-(4-methoxy-2-pyridinyl)ethyl]-1H-imidazo[4,5-b]pyridin-6-yl]phenyl]sulfonyl]-4-(4-methylphenyl)- (9CI) (CA INDEX NAME)



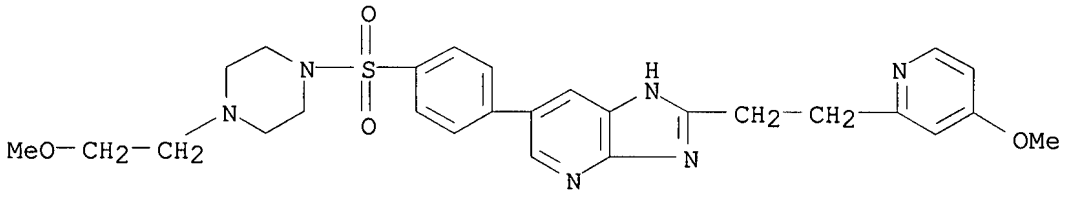
RN 849530-76-3 CAPLUS
CN Piperazine, 1-(2,4-dimethylphenyl)-4-[[4-[2-[2-(4-methoxy-2-pyridinyl)ethyl]-1H-imidazo[4,5-b]pyridin-6-yl]phenyl]sulfonyl]- (9CI) (CA INDEX NAME)



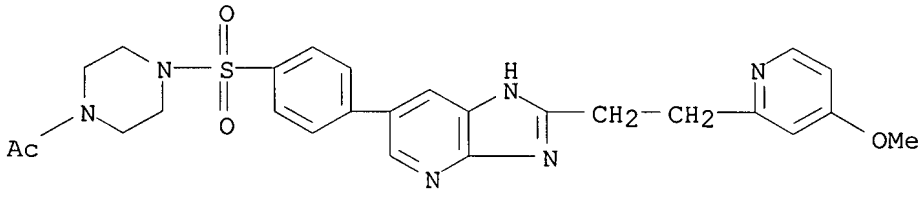
RN 849530-78-5 CAPLUS
CN Piperazine, 1-(3,5-dichlorophenyl)-4-[[4-[2-[2-(4-methoxy-2-pyridinyl)ethyl]-1H-imidazo[4,5-b]pyridin-6-yl]phenyl]sulfonyl]- (9CI) (CA INDEX NAME)



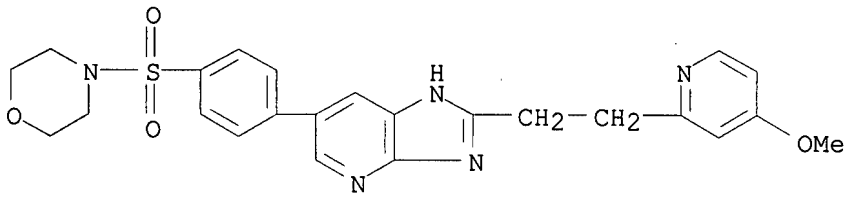
RN 849530-80-9 CAPLUS
CN Piperazine, 1-(2-methoxyethyl)-4-[[4-[2-[2-(4-methoxy-2-pyridinyl)ethyl]-1H-imidazo[4,5-b]pyridin-6-yl]phenyl]sulfonyl]- (9CI) (CA INDEX NAME)



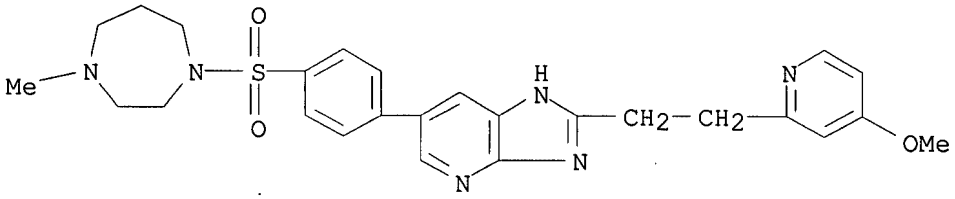
RN 849530-82-1 CAPLUS
CN Piperazine, 1-acetyl-4-[[4-[2-[2-(4-methoxy-2-pyridinyl)ethyl]-1H-imidazo[4,5-b]pyridin-6-yl]phenyl]sulfonyl]- (9CI) (CA INDEX NAME)



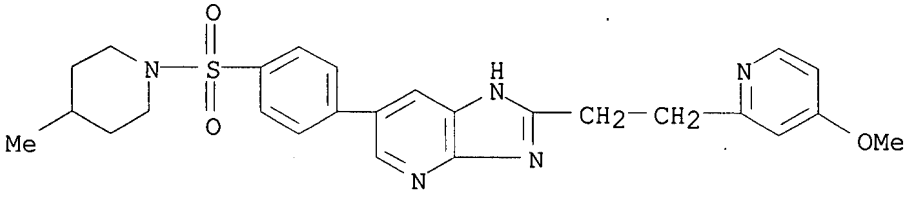
RN 849530-84-3 CAPLUS
CN Morpholine, 4-[[4-[2-[2-(4-methoxy-2-pyridinyl)ethyl]-1H-imidazo[4,5-b]pyridin-6-yl]phenyl]sulfonyl]- (9CI) (CA INDEX NAME)



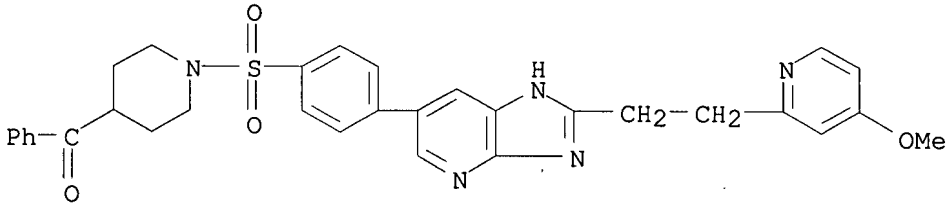
RN 849530-86-5 CAPLUS
CN 1H-1,4-Diazepine, hexahydro-1-[[4-[2-[2-(4-methoxy-2-pyridinyl)ethyl]-1H-imidazo[4,5-b]pyridin-6-yl]phenyl]sulfonyl]-4-methyl- (9CI) (CA INDEX NAME)



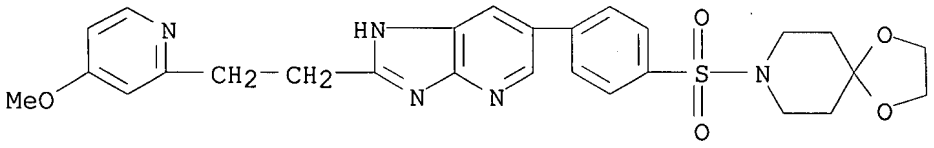
RN 849530-88-7 CAPLUS
CN Piperidine, 1-[[4-[2-[2-(4-methoxy-2-pyridinyl)ethyl]-1H-imidazo[4,5-b]pyridin-6-yl]phenyl]sulfonyl]-4-methyl- (9CI) (CA INDEX NAME)



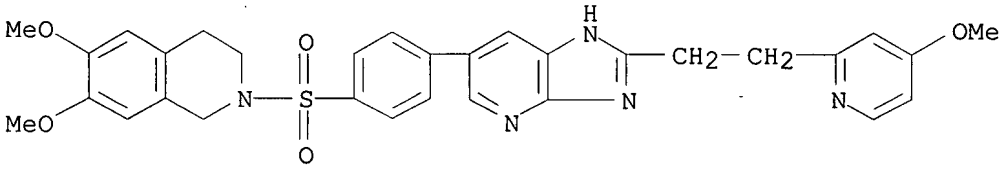
RN 849530-90-1 CAPLUS
CN Piperidine, 4-benzoyl-1-[[4-[2-[2-(4-methoxy-2-pyridinyl)ethyl]-1H-imidazo[4,5-b]pyridin-6-yl]phenyl]sulfonyl]- (9CI) (CA INDEX NAME)



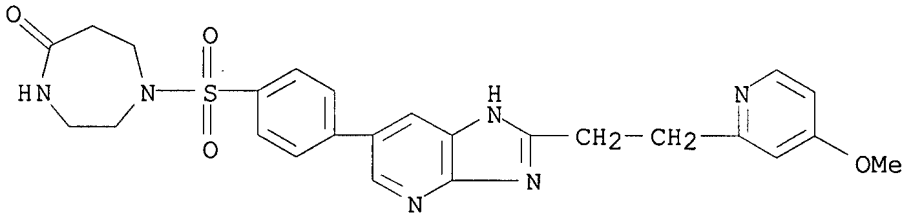
RN 849530-92-3 CAPLUS
CN 1,4-Dioxa-8-azaspiro[4.5]decane, 8-[[4-[2-[2-(4-methoxy-2-pyridinyl)ethyl]-1H-imidazo[4,5-b]pyridin-6-yl]phenyl]sulfonyl]- (9CI) (CA INDEX NAME)



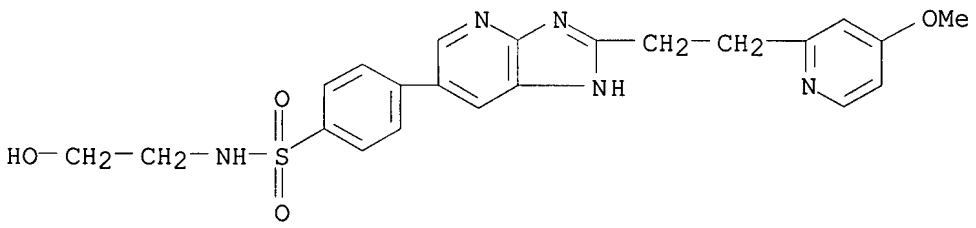
RN 849530-94-5 CAPLUS
CN Isoquinoline, 1,2,3,4-tetrahydro-6,7-dimethoxy-2-[[4-[2-[2-(4-methoxy-2-pyridinyl)ethyl]-1H-imidazo[4,5-b]pyridin-6-yl]phenyl]sulfonyl]- (9CI) (CA INDEX NAME)



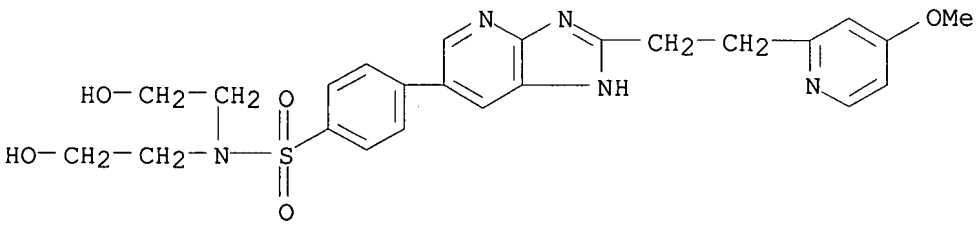
RN 849530-96-7 CAPLUS
CN 5H-1,4-Diazepin-5-one, hexahydro-1-[[4-[2-[2-(4-methoxy-2-pyridinyl)ethyl]-1H-imidazo[4,5-b]pyridin-6-yl]phenyl]sulfonyl]- (9CI) (CA INDEX NAME)



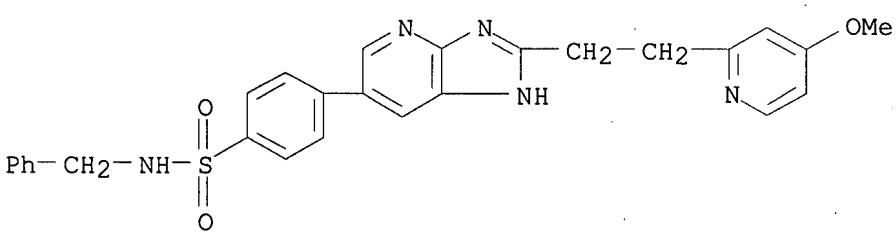
RN 849530-98-9 CAPLUS
CN Benzenesulfonamide, N-(2-hydroxyethyl)-4-[2-[2-(4-methoxy-2-pyridinyl)ethyl]-1H-imidazo[4,5-b]pyridin-6-yl]- (9CI) (CA INDEX NAME)



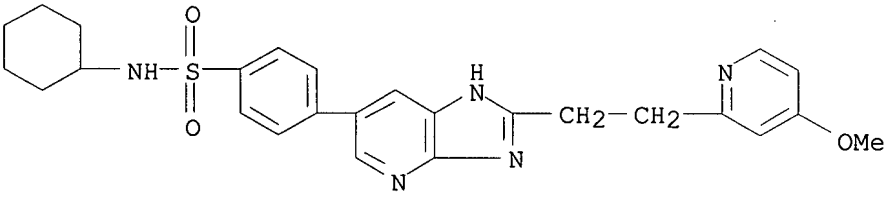
RN 849531-00-6 CAPLUS
CN Benzenesulfonamide, N,N-bis(2-hydroxyethyl)-4-[2-[2-(4-methoxy-2-pyridinyl)ethyl]-1H-imidazo[4,5-b]pyridin-6-yl]- (9CI) (CA INDEX NAME)



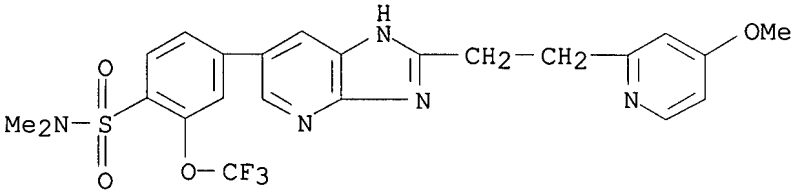
RN 849531-02-8 CAPLUS
CN Benzenesulfonamide, 4-[2-[2-(4-methoxy-2-pyridinyl)ethyl]-1H-imidazo[4,5-b]pyridin-6-yl]-N-(phenylmethyl)- (9CI) (CA INDEX NAME)



RN 849531-04-0 CAPLUS
CN Benzenesulfonamide, N-cyclohexyl-4-[2-[2-(4-methoxy-2-pyridinyl)ethyl]-1H-imidazo[4,5-b]pyridin-6-yl]- (9CI) (CA INDEX NAME)



RN 849531-06-2 CAPLUS
CN Benzenesulfonamide, 4-[2-[2-(4-methoxy-2-pyridinyl)ethyl]-1H-imidazo[4,5-b]pyridin-6-yl]-N,N-dimethyl-2-(trifluoromethoxy)- (9CI) (CA INDEX NAME)



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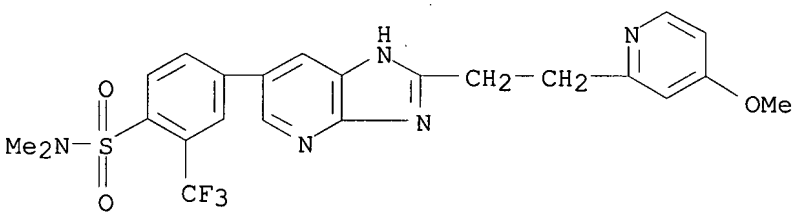
CN Benzenesulfonamide, 4-[2-[2-(4-methoxy-2-pyridinyl)ethyl]-1H-imidazo[4,5-b]pyridin-6-yl]-N,N-dimethyl-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)



RN 849531-10-8 CAPLUS
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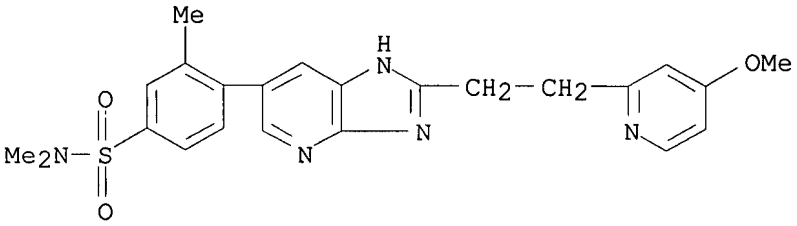

RN 849531-12-0 CAPLUS
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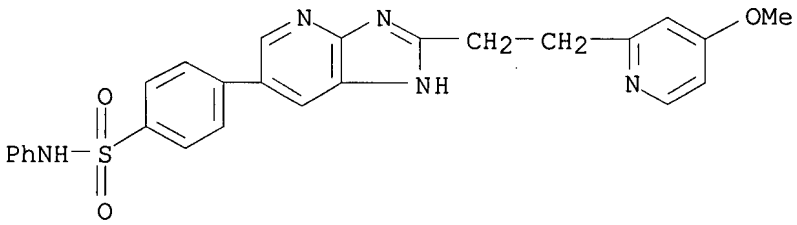
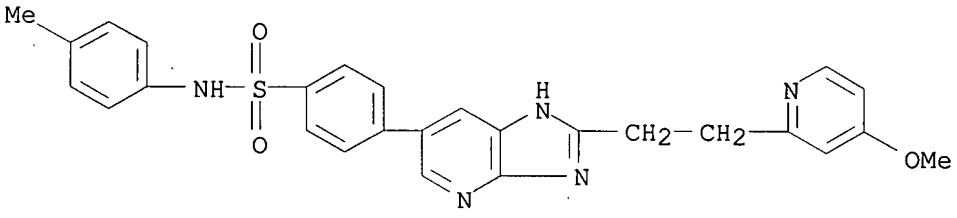
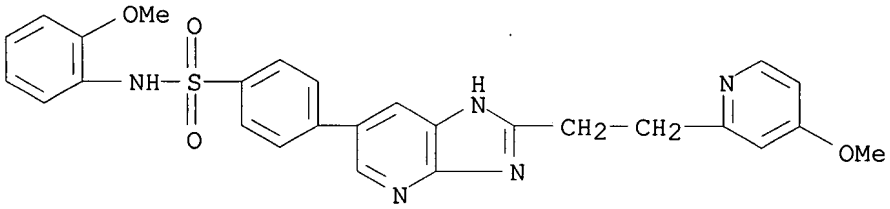


RN 849531-14-2 CAPLUS
CN Benzenesulfonamide, 4-[2-[2-(4-methoxy-2-pyridinyl)ethyl]-1H-imidazo[4,5-b]pyridin-6-yl]-N-(4-methylphenyl)- (9CI) (CA INDEX NAME)



RN 849531-16-4 CAPLUS
CN Benzenesulfonamide, N-(2-methoxyphenyl)-4-[2-[2-(4-methoxy-2-pyridinyl)ethyl]-1H-imidazo[4,5-b]pyridin-6-yl]- (9CI) (CA INDEX NAME)



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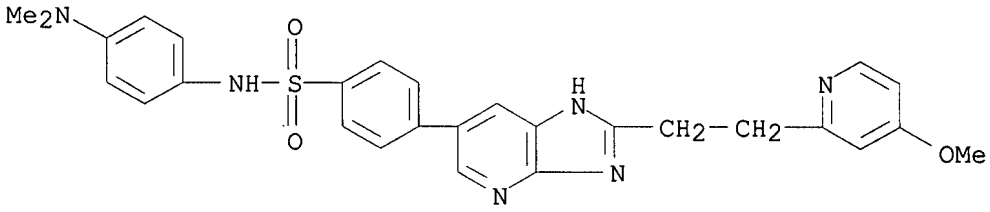
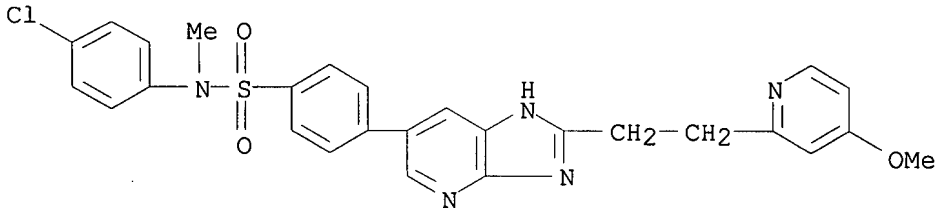
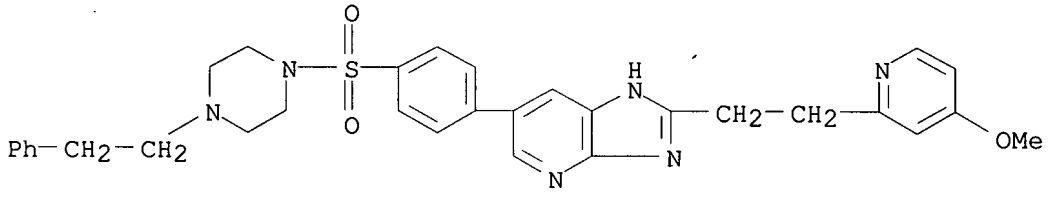
CN Benzenesulfonamide, N-[4-(dimethylamino)phenyl]-4-[2-[2-(4-methoxy-2-pyridinyl)ethyl]-1H-imidazo[4,5-b]pyridin-6-yl]- (9CI) (CA INDEX NAME)



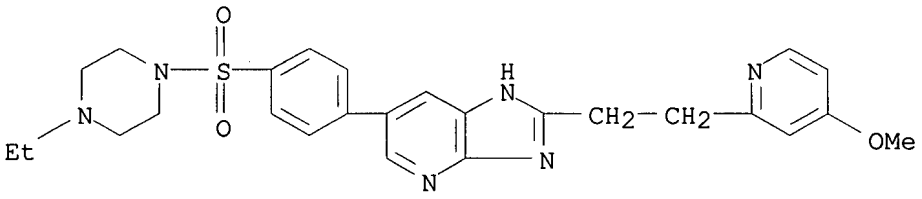
RN 849531-20-0 CAPLUS
CN Benzenesulfonamide, N-(4-chlorophenyl)-4-[2-[2-(4-methoxy-2-pyridinyl)ethyl]-1H-imidazo[4,5-b]pyridin-6-yl]-N-methyl- (9CI) (CA INDEX NAME)



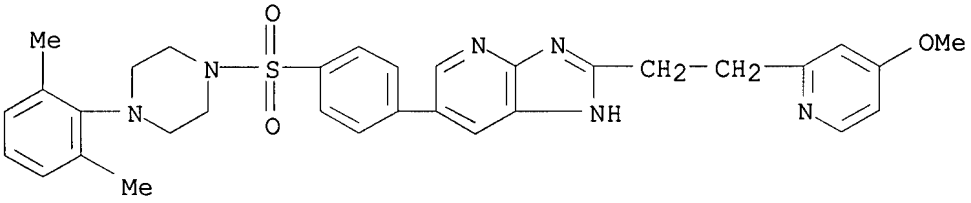
RN 849531-23-3 CAPLUS
CN Piperazine, 1-[[4-[2-[2-(4-methoxy-2-pyridinyl)ethyl]-1H-imidazo[4,5-b]pyridin-6-yl]phenyl]sulfonyl]-4-(2-phenylethyl)- (9CI) (CA INDEX NAME)



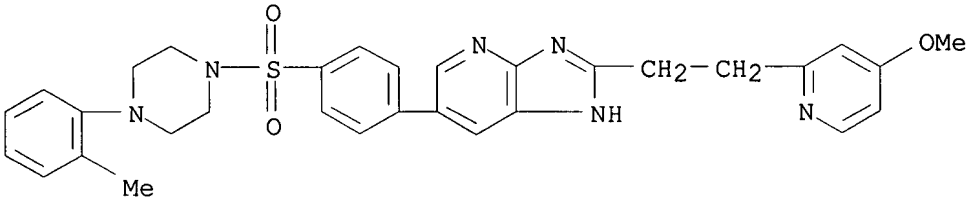
RN 849531-25-5 CAPLUS
CN Piperazine, 1-ethyl-4-[[4-[2-[2-(4-methoxy-2-pyridinyl)ethyl]-1H-imidazo[4,5-b]pyridin-6-yl]phenyl]sulfonyl]- (9CI) (CA INDEX NAME)



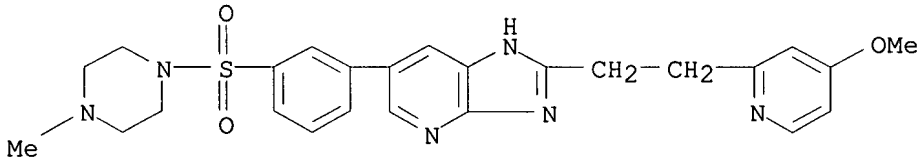
RN 849531-27-7 CAPLUS
CN Piperazine, 1-(2,6-dimethylphenyl)-4-[[4-[2-[2-(4-methoxy-2-pyridinyl)ethyl]-1H-imidazo[4,5-b]pyridin-6-yl]phenyl]sulfonyl]- (9CI) (CA INDEX NAME)



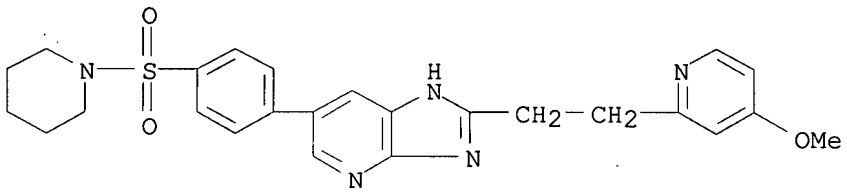
RN 849531-29-9 CAPLUS
CN Piperazine, 1-[[4-[2-[2-(4-methoxy-2-pyridinyl)ethyl]-1H-imidazo[4,5-b]pyridin-6-yl]phenyl]sulfonyl]-4-(2-methylphenyl)- (9CI) (CA INDEX NAME)



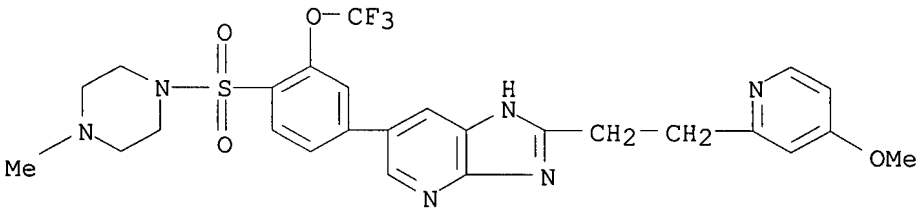
RN 849531-31-3 CAPLUS
CN Piperazine, 1-[[3-[2-[2-(4-methoxy-2-pyridinyl)ethyl]-1H-imidazo[4,5-b]pyridin-6-yl]phenyl]sulfonyl]-4-methyl- (9CI) (CA INDEX NAME)



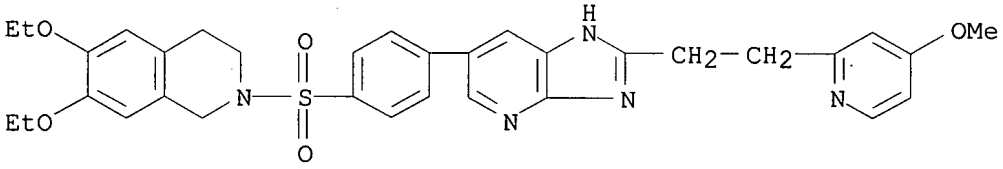
RN 849531-33-5 CAPLUS
CN Piperidine, 1-[[4-[2-[2-(4-methoxy-2-pyridinyl)ethyl]-1H-imidazo[4,5-b]pyridin-6-yl]phenyl]sulfonyl]- (9CI) (CA INDEX NAME)



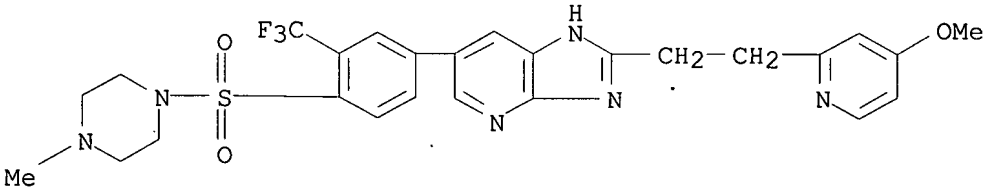
RN 849531-36-8 CAPLUS
CN Piperazine, 1-[[4-[2-[2-(4-methoxy-2-pyridinyl)ethyl]-1H-imidazo[4,5-b]pyridin-6-yl]-2-(trifluoromethoxy)phenyl]sulfonyl]-4-methyl- (9CI) (CA INDEX NAME)



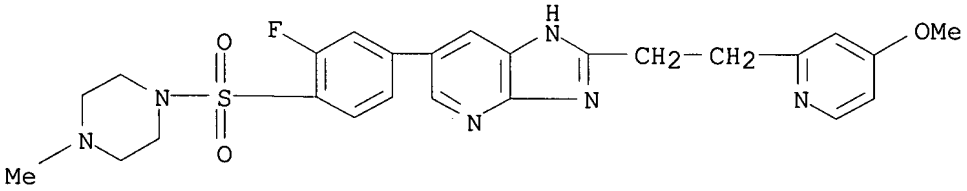
RN 849531-38-0 CAPLUS
CN Isoquinoline, 6,7-diethoxy-1,2,3,4-tetrahydro-2-[[4-[2-[2-(4-methoxy-2-pyridinyl)ethyl]-1H-imidazo[4,5-b]pyridin-6-yl]phenyl]sulfonyl]- (9CI) (CA INDEX NAME)



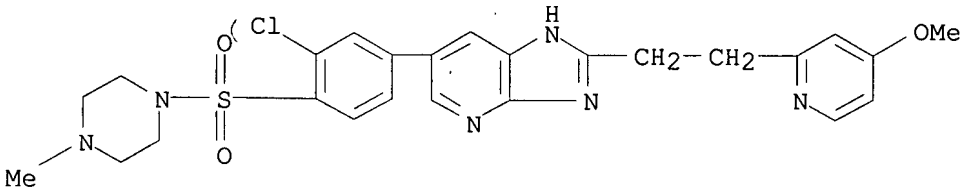
RN 849531-40-4 CAPLUS
CN Piperazine, 1-[[4-[2-[2-(4-methoxy-2-pyridinyl)ethyl]-1H-imidazo[4,5-b]pyridin-6-yl]-2-(trifluoromethyl)phenyl]sulfonyl]-4-methyl- (9CI) (CA INDEX NAME)



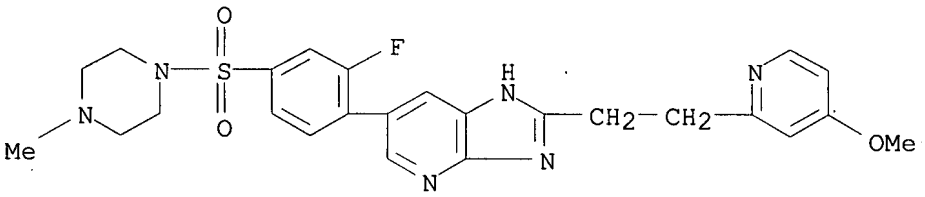
RN 849531-42-6 CAPLUS
CN Piperazine, 1-[[2-fluoro-4-[2-[2-(4-methoxy-2-pyridinyl)ethyl]-1H-imidazo[4,5-b]pyridin-6-yl]phenyl]sulfonyl]-4-methyl- (9CI) (CA INDEX NAME)



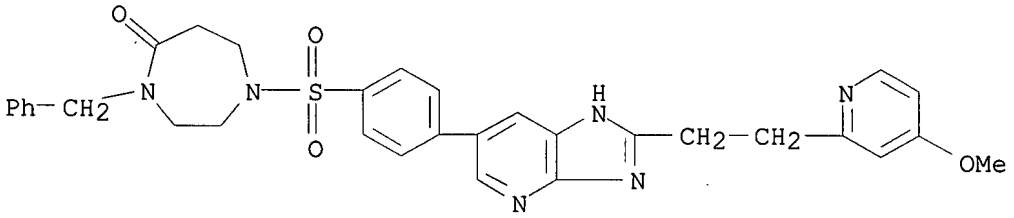
RN 849531-44-8 CAPLUS
CN Piperazine, 1-[[2-chloro-4-[2-[2-(4-methoxy-2-pyridinyl)ethyl]-1H-imidazo[4,5-b]pyridin-6-yl]phenyl]sulfonyl]-4-methyl- (9CI) (CA INDEX NAME)



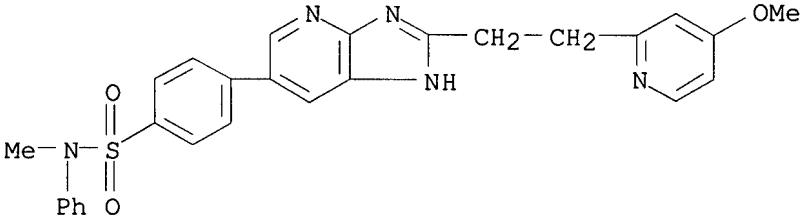
RN 849531-46-0 CAPLUS
CN Piperazine, 1-[[3-fluoro-4-[2-[2-(4-methoxy-2-pyridinyl)ethyl]-1H-imidazo[4,5-b]pyridin-6-yl]phenyl]sulfonyl]-4-methyl- (9CI) (CA INDEX NAME)



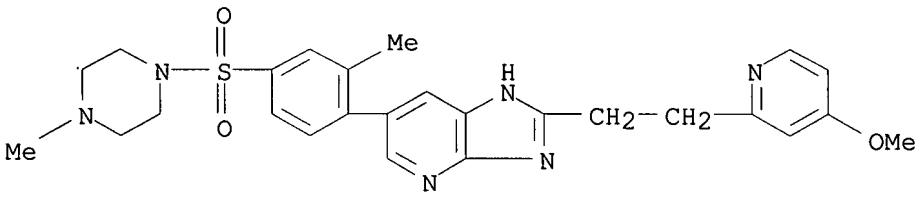
RN 849531-48-2 CAPLUS
CN 5H-1,4-Diazepin-5-one, hexahydro-1-[[4-[2-[2-(4-methoxy-2-pyridinyl)ethyl]-1H-imidazo[4,5-b]pyridin-6-yl]phenyl]sulfonyl]-4-(phenylmethyl)- (9CI) (CA INDEX NAME)



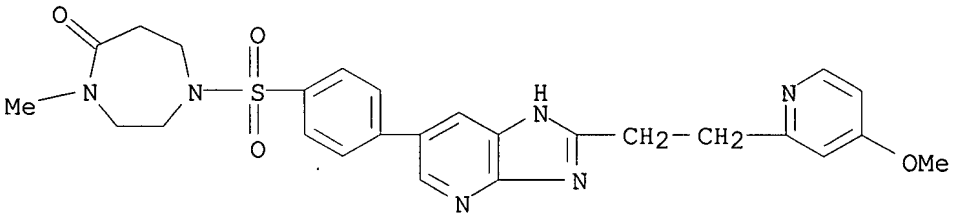
RN 849531-50-6 CAPLUS
CN Benzenesulfonamide, 4-[2-[2-(4-methoxy-2-pyridinyl)ethyl]-1H-imidazo[4,5-b]pyridin-6-yl]-N-methyl-N-phenyl- (9CI) (CA INDEX NAME)



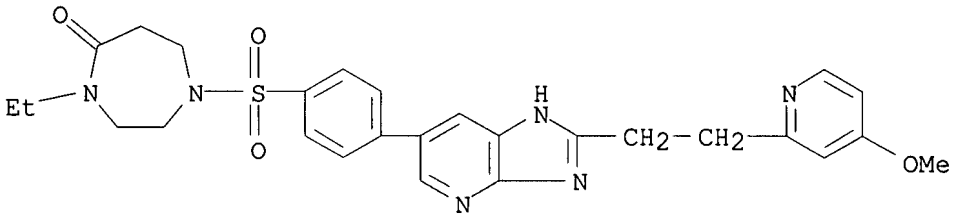
RN 849531-52-8 CAPLUS
CN Piperazine, 1-[[4-[2-[2-(4-methoxy-2-pyridinyl)ethyl]-1H-imidazo[4,5-b]pyridin-6-yl]-3-methylphenyl]sulfonyl]-4-methyl- (9CI) (CA INDEX NAME)



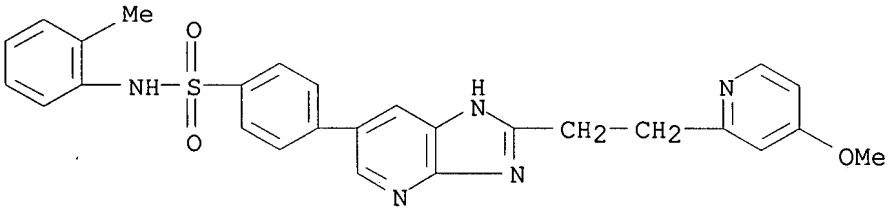
RN 849531-54-0 CAPLUS
CN 5H-1,4-Diazepin-5-one, hexahydro-1-[[4-[2-[2-(4-methoxy-2-pyridinyl)ethyl]-1H-imidazo[4,5-b]pyridin-6-yl]phenyl]sulfonyl]-4-methyl- (9CI) (CA INDEX NAME)



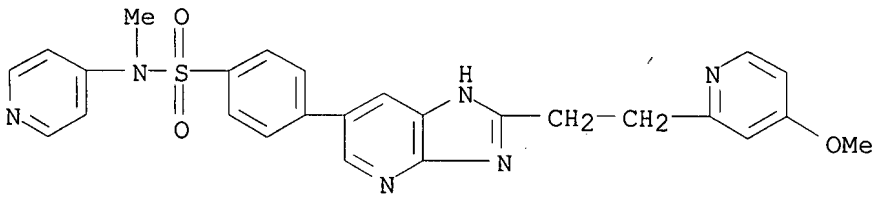
RN 849531-56-2 CAPLUS
CN 5H-1,4-Diazepin-5-one, 4-ethylhexahydro-1-[[4-[2-[2-(4-methoxy-2-pyridinyl)ethyl]-1H-imidazo[4,5-b]pyridin-6-yl]phenyl]sulfonyl]- (9CI) (CA INDEX NAME)



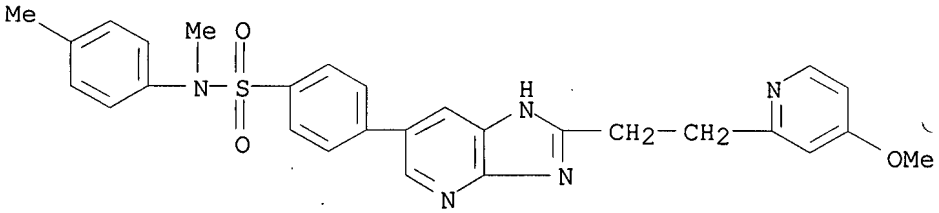
RN 849531-58-4 CAPLUS
CN Benzenesulfonamide, 4-[2-[2-(4-methoxy-2-pyridinyl)ethyl]-1H-imidazo[4,5-b]pyridin-6-yl]-N-(2-methylphenyl)- (9CI) (CA INDEX NAME)



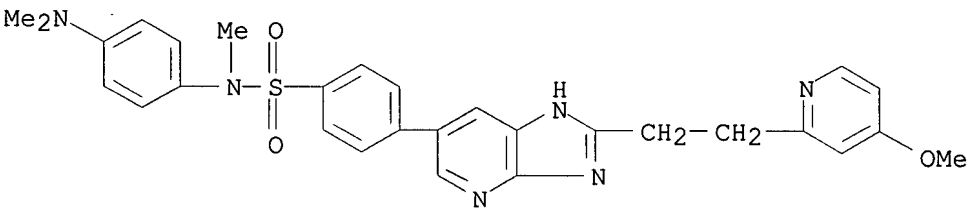
RN 849531-60-8 CAPLUS
CN Benzenesulfonamide, 4-[2-[2-(4-methoxy-2-pyridinyl)ethyl]-1H-imidazo[4,5-b]pyridin-6-yl]-N-methyl-N-4-pyridinyl- (9CI) (CA INDEX NAME)



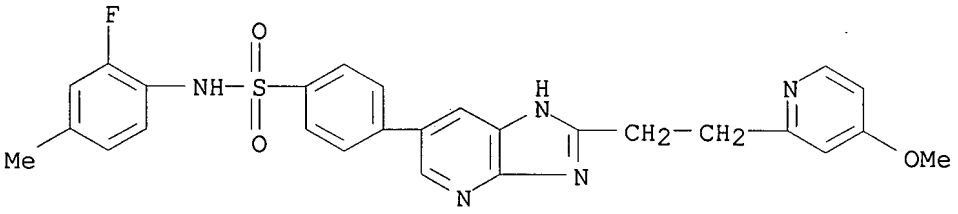
RN 849531-62-0 CAPLUS
CN Benzenesulfonamide, 4-[2-[2-(4-methoxy-2-pyridinyl)ethyl]-1H-imidazo[4,5-b]pyridin-6-yl]-N-methyl-N-(4-methylphenyl)- (9CI) (CA INDEX NAME)



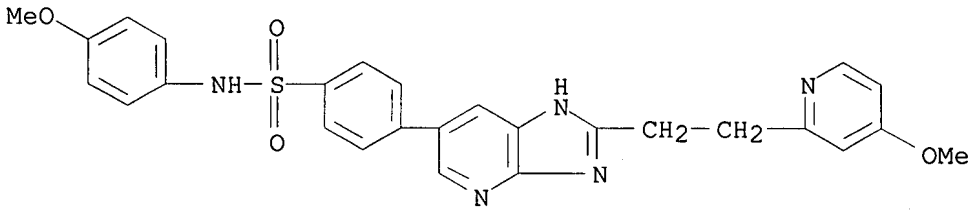
RN 849531-64-2 CAPLUS
CN Benzenesulfonamide, N-[4-(dimethylamino)phenyl]-4-[2-[2-(4-methoxy-2-pyridinyl)ethyl]-1H-imidazo[4,5-b]pyridin-6-yl]-N-methyl- (9CI) (CA INDEX NAME)



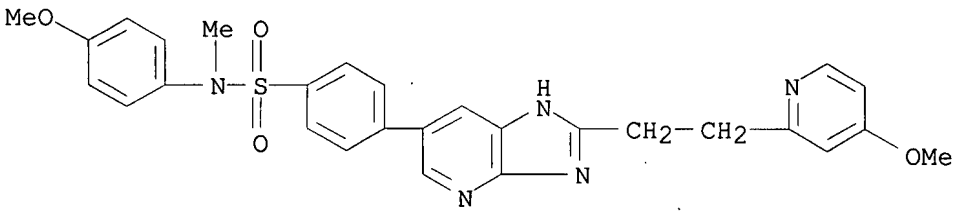
RN 849531-66-4 CAPLUS
CN Benzenesulfonamide, N-(2-fluoro-4-methylphenyl)-4-[2-[2-(4-methoxy-2-pyridinyl)ethyl]-1H-imidazo[4,5-b]pyridin-6-yl]- (9CI) (CA INDEX NAME)



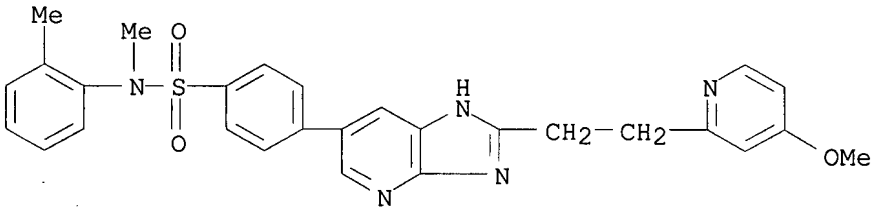
RN 849531-68-6 CAPLUS
CN Benzenesulfonamide, N-(4-methoxyphenyl)-4-[2-[2-(4-methoxy-2-pyridinyl)ethyl]-1H-imidazo[4,5-b]pyridin-6-yl]- (9CI) (CA INDEX NAME)



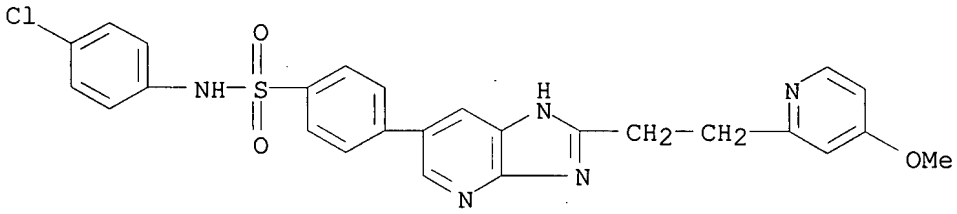
RN 849531-70-0 CAPLUS
CN Benzenesulfonamide, N-(4-methoxyphenyl)-4-[2-[2-(4-methoxy-2-pyridinyl)ethyl]-1H-imidazo[4,5-b]pyridin-6-yl]-N-methyl- (9CI) (CA INDEX NAME)



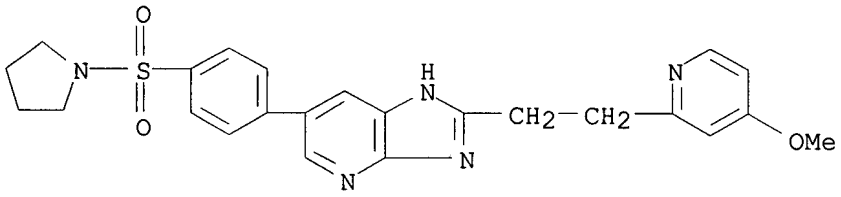
RN 849531-72-2 CAPLUS
CN Benzenesulfonamide, 4-[2-[2-(4-methoxy-2-pyridinyl)ethyl]-1H-imidazo[4,5-b]pyridin-6-yl]-N-methyl-N-(2-methylphenyl)- (9CI) (CA INDEX NAME)



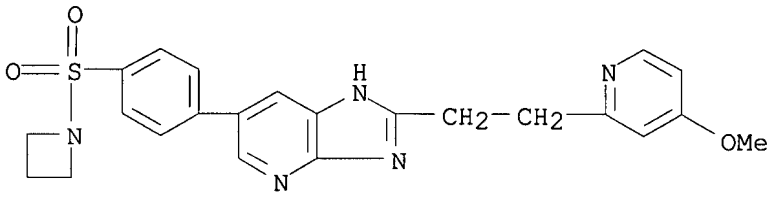
RN 849531-74-4 CAPLUS
CN Benzenesulfonamide, N-(4-chlorophenyl)-4-[2-[2-(4-methoxy-2-pyridinyl)ethyl]-1H-imidazo[4,5-b]pyridin-6-yl]- (9CI) (CA INDEX NAME)



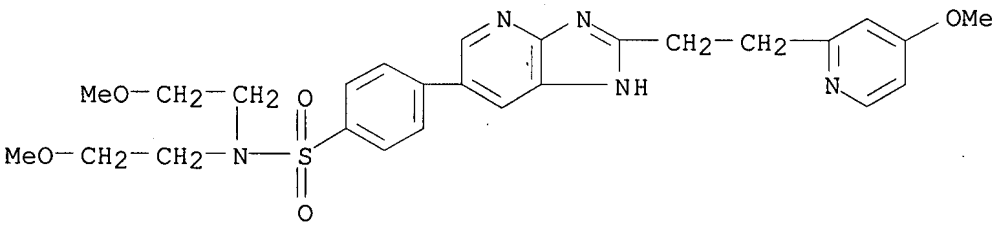
RN 849531-76-6 CAPLUS
CN Pyrrolidine, 1-[[4-[2-[2-(4-methoxy-2-pyridinyl)ethyl]-1H-imidazo[4,5-b]pyridin-6-yl]phenyl]sulfonyl]- (9CI) (CA INDEX NAME)



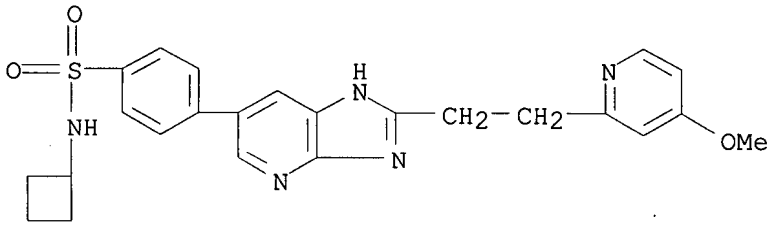
RN 849531-78-8 CAPLUS
CN Azetidine, 1-[[4-[2-[2-(4-methoxy-2-pyridinyl)ethyl]-1H-imidazo[4,5-b]pyridin-6-yl]phenyl]sulfonyl]- (9CI) (CA INDEX NAME)



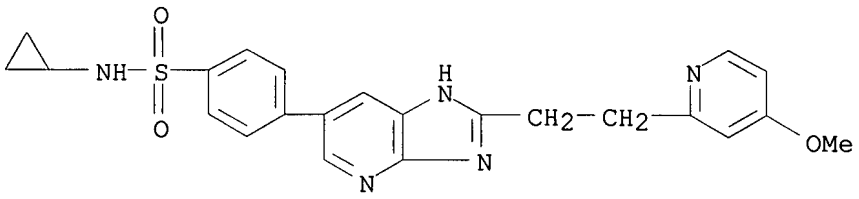
RN 849531-80-2 CAPLUS
CN Benzenesulfonamide, N,N-bis(2-methoxyethyl)-4-[2-[2-(4-methoxy-2-pyridinyl)ethyl]-1H-imidazo[4,5-b]pyridin-6-yl]- (9CI) (CA INDEX NAME)



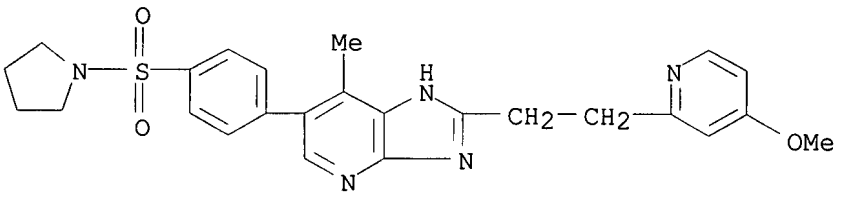
RN 849531-82-4 CAPLUS
CN Benzenesulfonamide, N-cyclobutyl-4-[2-[2-(4-methoxy-2-pyridinyl)ethyl]-1H-imidazo[4,5-b]pyridin-6-yl]- (9CI) (CA INDEX NAME)



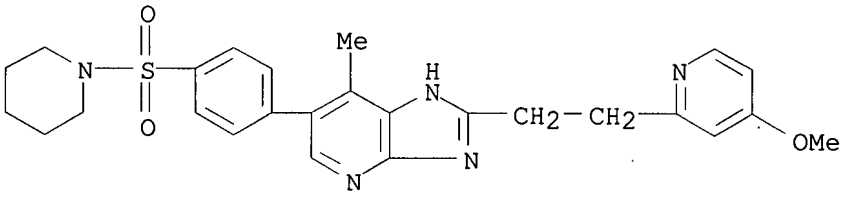
RN 849531-84-6 CAPLUS
CN Benzenesulfonamide, N-cyclopropyl-4-[2-[2-(4-methoxy-2-pyridinyl)ethyl]-1H-imidazo[4,5-b]pyridin-6-yl]- (9CI) (CA INDEX NAME)



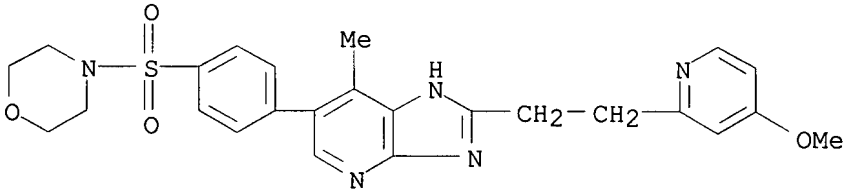
RN 849531-86-8 CAPLUS
CN Pyrrolidine, 1-[[4-[2-[2-(4-methoxy-2-pyridinyl)ethyl]-7-methyl-1H-imidazo[4,5-b]pyridin-6-yl]phenyl]sulfonyl]- (9CI) (CA INDEX NAME)



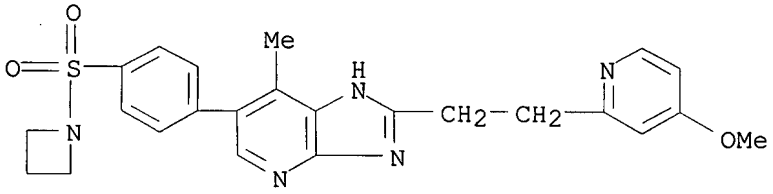
RN 849531-88-0 CAPLUS
CN Piperidine, 1-[[4-[2-[2-(4-methoxy-2-pyridinyl)ethyl]-7-methyl-1H-imidazo[4,5-b]pyridin-6-yl]phenyl]sulfonyl]- (9CI) (CA INDEX NAME)



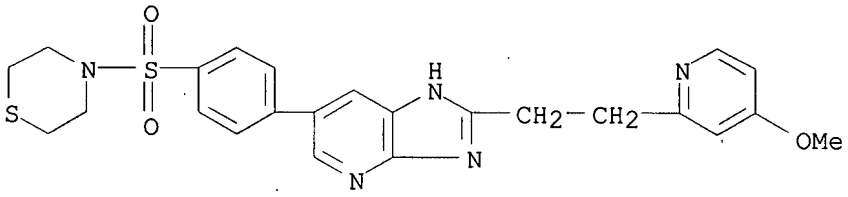
RN 849531-90-4 CAPLUS
CN Morpholine, 4-[[4-[2-[2-(4-methoxy-2-pyridinyl)ethyl]-7-methyl-1H-imidazo[4,5-b]pyridin-6-yl]phenyl]sulfonyl]- (9CI) (CA INDEX NAME)



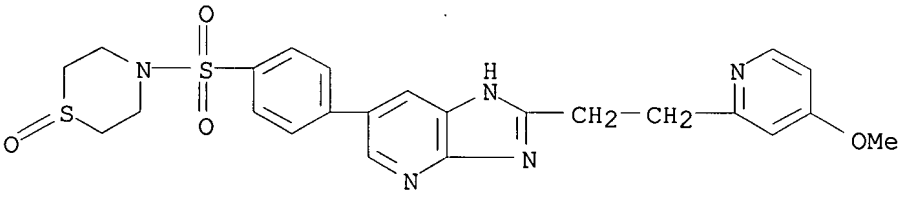
RN 849531-92-6 CAPLUS
CN Azetidine, 1-[[4-[2-[2-(4-methoxy-2-pyridinyl)ethyl]-7-methyl-1H-imidazo[4,5-b]pyridin-6-yl]phenyl]sulfonyl]- (9CI) (CA INDEX NAME)



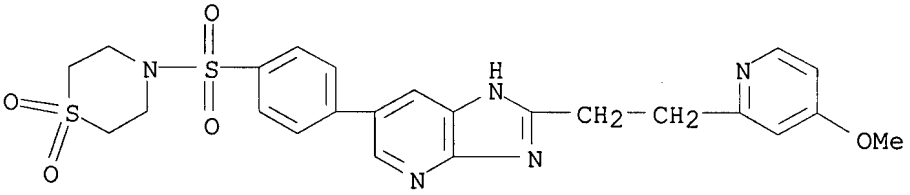
RN 849531-94-8 CAPLUS
CN Thiomorpholine, 4-[[4-[2-[2-(4-methoxy-2-pyridinyl)ethyl]-1H-imidazo[4,5-b]pyridin-6-yl]phenyl]sulfonyl]- (9CI) (CA INDEX NAME)



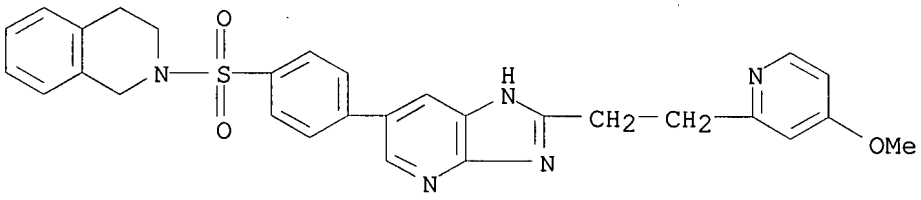
RN 849531-96-0 CAPLUS
CN Thiomorpholine, 4-[[4-[2-[2-(4-methoxy-2-pyridinyl)ethyl]-1H-imidazo[4,5-b]pyridin-6-yl]phenyl]sulfonyl]-, 1-oxide (9CI) (CA INDEX NAME)



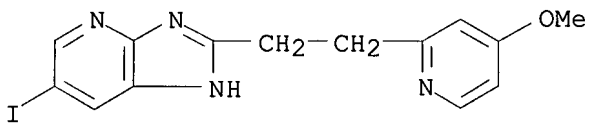
RN 849531-98-2 CAPLUS
CN Thiomorpholine, 4-[[4-[2-[2-(4-methoxy-2-pyridinyl)ethyl]-1H-imidazo[4,5-b]pyridin-6-yl]phenyl]sulfonyl]-, 1,1-dioxide (9CI) (CA INDEX NAME)



RN 849532-00-9 CAPLUS
CN Isoquinoline, 1,2,3,4-tetrahydro-2-[[4-[2-[2-(4-methoxy-2-pyridinyl)ethyl]-1H-imidazo[4,5-b]pyridin-6-yl]phenyl]sulfonyl]- (9CI) (CA INDEX NAME)



IT 608880-54-2P, 2-[2-[4-Methoxypyridin-2-yl]ethyl]-6-iodo-3H-imidazo[4,5-b]pyridine
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation of imidazopyridine derivs. as inducible NO-synthase inhibitors)
RN 608880-54-2 CAPLUS
CN 1H-Imidazo[4,5-b]pyridine, 6-iodo-2-[2-(4-methoxy-2-pyridinyl)ethyl]- (9CI) (CA INDEX NAME)

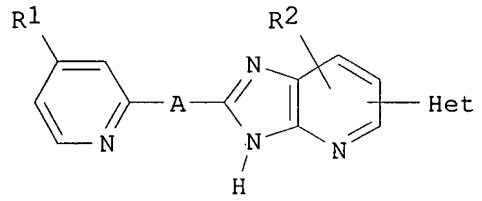


REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 5 OF 7 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2005:300445 CAPLUS
DOCUMENT NUMBER: 142:373836
TITLE: Preparation of imidazopyridine derivatives as inducible NO-synthase inhibitors
INVENTOR(S): Fuchss, Thomas; Martin, Thomas; Boer, Rainer; Strub, Andreas; Eltze, Manfrid; Lehner, Martin; Marx, Degenhard; Ulrich, Wolf-Ruediger
PATENT ASSIGNEE(S): Altana Pharma A.-G., Germany
SOURCE: PCT Int. Appl., 41 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2005030769	A1	20050407	WO 2004-EP52376	20040930
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
AU 2004276013	A1	20050407	AU 2004-276013	20040930
CA 2540242	A1	20050407	CA 2004-2540242	20040930
EP 1673371	A1	20060628	EP 2004-787261	20040930
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, PL, SK, HR				
CN 1856494	A	20061101	CN 2004-80027819	20040930
BR 2004014873	A	20061212	BR 2004-14873	20040930
JP 2007507465	T	20070329	JP 2006-530262	20040930
NO 2006001316	A	20060323	NO 2006-1316	20060323
IN 2006MN00473	A	20070316	IN 2006-MN473	20060424
PRIORITY APPLN. INFO.:			EP 2003-22064 A	20031001
			WO 2004-EP52376 W	20040930

OTHER SOURCE(S): MARPAT 142:373836
GI



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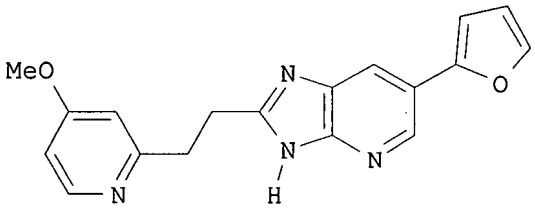


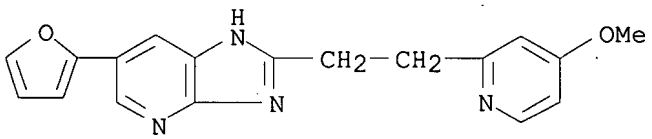
II

AB Title compds. I [R1 = alkoxy; A = alkylene; R2 = H, halo, alkyl, alkoxy; Het = (un)substituted monocyclic or fused 5-10 membered (un)saturated heteroaryl containing 1-3 heteroatoms selected from N, O, and S] and their resp. pharmaceutically acceptable salts, are prepared and disclosed as inducible no-synthase inhibitors. Thus, e.g., II was prepared via Suzuki coupling of 2-[2-(4-methoxypyridin-2-yl)ethyl]-6-iodo-3H-imidazo[4,5-b]pyridine (preparation given) with 2-furanylboronic acid. The activity of I towards inducible NO-synthase was evaluated in inhibition assays and revealed -logIC50 values from 6.61 up to 7.61 mol/L. I as inducible NO-synthase inhibitors should prove useful in the treatment of acute and chronic inflammatory diseases.

IT 849356-71-4P 849356-72-5P 849356-73-6P
849356-74-7P 849356-75-8P 849356-76-9P
849356-77-0P 849356-78-1P 849356-79-2P
849356-80-5P 849356-81-6P 849356-82-7P
849356-83-8P
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(preparation of imidazopyridine derivs. as inducible NO-synthase inhibitors)

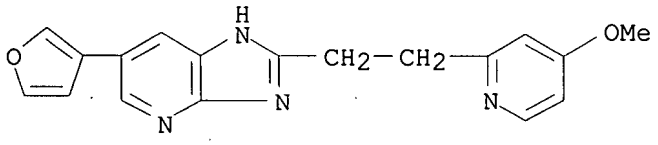
RN 849356-71-4 CAPLUS

CN 1H-Imidazo[4,5-b]pyridine, 6-(2-furanyl)-2-[2-(4-methoxy-2-pyridinyl)ethyl]- (9CI) (CA INDEX NAME)

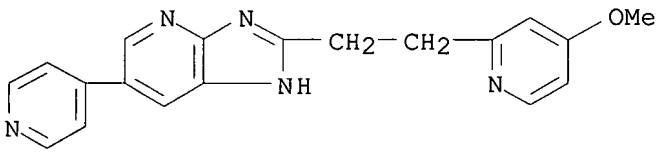


RN 849356-72-5 CAPLUS

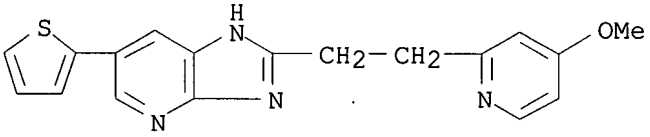
CN 1H-Imidazo[4,5-b]pyridine, 6-(3-furanyl)-2-[2-(4-methoxy-2-pyridinyl)ethyl]- (9CI) (CA INDEX NAME)



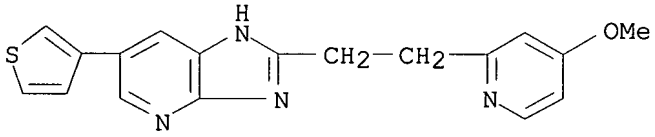
RN 849356-73-6 CAPLUS
CN 1H-Imidazo[4,5-b]pyridine, 2-[2-(4-methoxy-2-pyridinyl)ethyl]-6-(4-pyridinyl)- (9CI) (CA INDEX NAME)



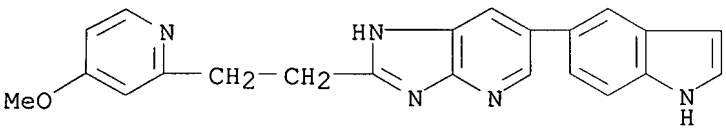
RN 849356-74-7 CAPLUS
CN 1H-Imidazo[4,5-b]pyridine, 2-[2-(4-methoxy-2-pyridinyl)ethyl]-6-(2-thienyl)- (9CI) (CA INDEX NAME)



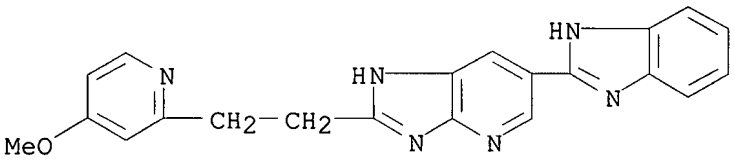
RN 849356-75-8 CAPLUS
CN 1H-Imidazo[4,5-b]pyridine, 2-[2-(4-methoxy-2-pyridinyl)ethyl]-6-(3-thienyl)- (9CI) (CA INDEX NAME)



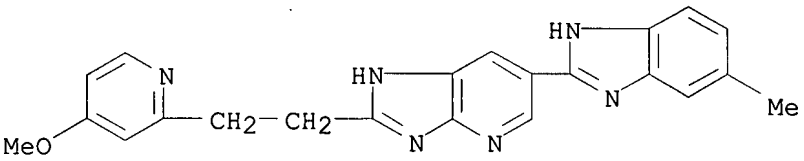
RN 849356-76-9 CAPLUS
CN 1H-Imidazo[4,5-b]pyridine, 6-(1H-indol-5-yl)-2-[2-(4-methoxy-2-pyridinyl)ethyl]- (9CI) (CA INDEX NAME)



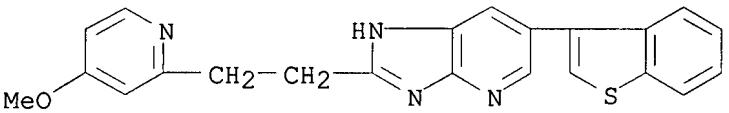
RN 849356-77-0 CAPLUS
CN 1H-Imidazo[4,5-b]pyridine, 6-(1H-benzimidazol-2-yl)-2-[2-(4-methoxy-2-pyridinyl)ethyl]- (9CI) (CA INDEX NAME)



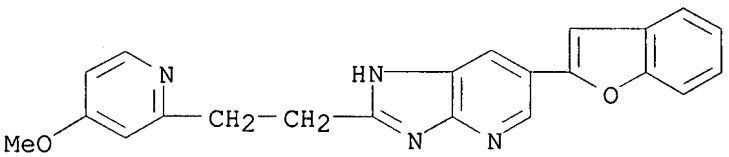
RN 849356-78-1 CAPLUS
CN 1H-Imidazo[4,5-b]pyridine, 2-[2-(4-methoxy-2-pyridinyl)ethyl]-6-(5-methyl-1H-benzimidazol-2-yl)- (9CI) (CA INDEX NAME)



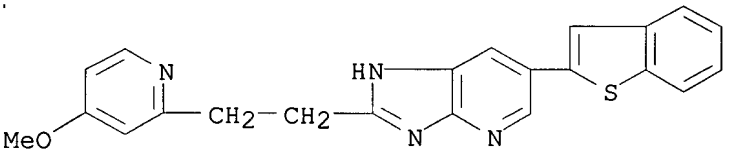
RN 849356-79-2 CAPLUS
CN 1H-Imidazo[4,5-b]pyridine, 6-benzo[b]thien-3-yl-2-[2-(4-methoxy-2-pyridinyl)ethyl]- (9CI) (CA INDEX NAME)



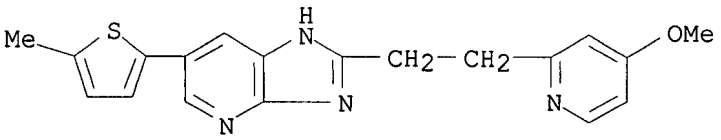
RN 849356-80-5 CAPLUS
CN 1H-Imidazo[4,5-b]pyridine, 6-(2-benzofuranyl)-2-[2-(4-methoxy-2-pyridinyl)ethyl]- (9CI) (CA INDEX NAME)



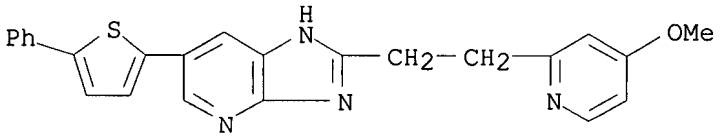
RN 849356-81-6 CAPLUS
CN 1H-Imidazo[4,5-b]pyridine, 6-benzo[b]thien-2-yl-2-[2-(4-methoxy-2-pyridinyl)ethyl]- (9CI) (CA INDEX NAME)



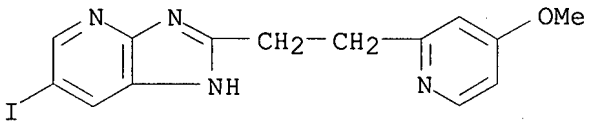
RN 849356-82-7 CAPLUS
CN 1H-Imidazo[4,5-b]pyridine, 2-[2-(4-methoxy-2-pyridinyl)ethyl]-6-(5-methyl-2-thienyl)- (9CI) (CA INDEX NAME)



RN 849356-83-8 CAPLUS
CN 1H-Imidazo[4,5-b]pyridine, 2-[2-(4-methoxy-2-pyridinyl)ethyl]-6-(5-phenyl-2-thienyl)- (9CI) (CA INDEX NAME)



IT 608880-54-2P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation of imidazopyridine derivs. as inducible NO-synthase inhibitors)
RN 608880-54-2 CAPLUS
CN 1H-Imidazo[4,5-b]pyridine, 6-iodo-2-[2-(4-methoxy-2-pyridinyl)ethyl]-(9CI) (CA INDEX NAME)



REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 6 OF 7 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2005:300444 CAPLUS
DOCUMENT NUMBER: 142:373835
TITLE: Preparation of imidazopyridine derivatives as inducible NO-synthase inhibitors
INVENTOR(S): Boer, Rainer; Ulrich, Wolf-Ruediger; Eltze, Manfrid; Marx, Degenhard; Graedler, Ulrich; Fuchss, Thomas
PATENT ASSIGNEE(S): Altana Pharma A.-G., Germany
SOURCE: PCT Int. Appl., 31 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2005030768	A1	20050407	WO 2004-EP52370	20040930

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW
RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE,

SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

AU 2004276012	A1	20050407	AU 2004-276012		20040930
CA 2540239	A1	20050407	CA 2004-2540239		20040930
EP 1675853	A1	20060705	EP 2004-787257		20040930
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, PL, SK, HR					
CN 1856492	A	20061101	CN 2004-80027796		20040930
BR 2004015038	A	20061212	BR 2004-15038		20040930
JP 2007507463	T	20070329	JP 2006-530260		20040930
NO 2006001343	A	20060324	NO 2006-1343		20060324
US 2007010549	A1	20070111	US 2006-573203		20060324
PRIORITY APPLN. INFO.:			EP 2003-22042	A	20031001
			WO 2004-EP52370	W	20040930

OTHER SOURCE(S): MARPAT 142:373835

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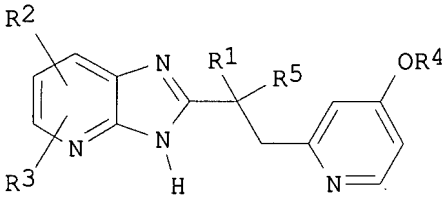

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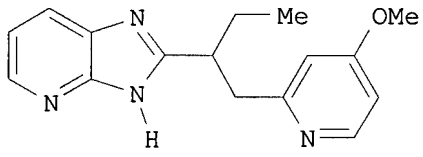


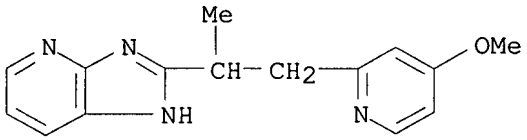
II

AB Title compds. I [R1 = H, alkyl; R2 = H, halo, OH, etc.; R3 = H, halo, alkyl, alkoxy; R4 = alkyl; R5 = alkyl] and their resp. pharmaceutically acceptable salts, are prepared and disclosed as inducible no-synthase inhibitors. Thus, e.g., II was prepared via Wittig reaction of triphenyl-{1-(3H-imidazo[4,5-b]pyridin-2-yl)-propyl}-phosphonium chloride (preparation given) with 4-methoxypyridine-2-carboxaldehyde and subsequent hydrogenation. The activity of II towards inducible NO-synthase was evaluated in an inhibition assay and revealed a -logIC50 value of 7.15 mol/L. I as inducible NO-synthase inhibitors should prove useful in the treatment of acute and chronic inflammatory diseases.

IT 849346-44-7P 849346-45-8P 849346-46-9P
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(preparation of imidazopyridine derivs. as inducible NO-synthase inhibitors)

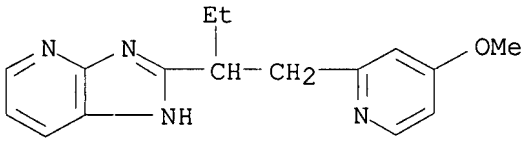
RN 849346-44-7 CAPLUS

CN 1H-Imidazo[4,5-b]pyridine, 2-[2-(4-methoxy-2-pyridinyl)-1-methylethyl]-, hydrochloride (9CI) (CA INDEX NAME)

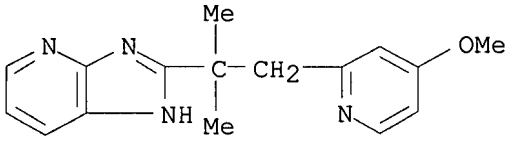


● x HCl

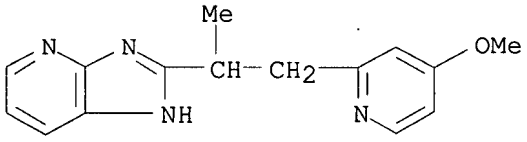
RN 849346-45-8 CAPLUS
CN 1H-Imidazo[4,5-b]pyridine, 2-[1-[(4-methoxy-2-pyridinyl)methyl]propyl]- (9CI) (CA INDEX NAME)



RN 849346-46-9 CAPLUS
CN 1H-Imidazo[4,5-b]pyridine, 2-[2-(4-methoxy-2-pyridinyl)-1,1-dimethylethyl]- (9CI) (CA INDEX NAME)



IT 849346-55-0P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation of imidazopyridine derivs. as inducible NO-synthase inhibitors)
RN 849346-55-0 CAPLUS
CN 1H-Imidazo[4,5-b]pyridine, 2-[2-(4-methoxy-2-pyridinyl)-1-methylethyl]- (9CI) (CA INDEX NAME)



REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

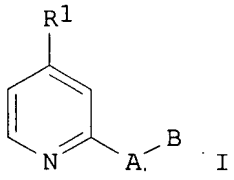
L4 ANSWER 7 OF 7 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2003:777790 CAPLUS
DOCUMENT NUMBER: 139:292156
TITLE: Preparation of alkoxypyridines as inducible nitric oxide synthase (iNOS) inhibitors
INVENTOR(S): Boer, Rainer; Marx, Degenhard; Eltze, Manfrid; Klein, Thomas; Nave, Ruediger; Graedler, Ulrich; Fuchss, Thomas; Barsig, Johannes; Ulrich, Wolf-Ruediger
PATENT ASSIGNEE(S): Altana Pharma A.-G., Germany

SOURCE: PCT Int. Appl., 52 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

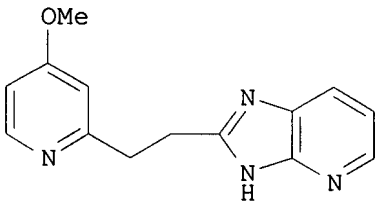
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2003080607	A1	20031002	WO 2003-EP3076	20030325
W: AE, AL, AU, BA, BR, CA, CN, CO, CU, DZ, EC, GE, HR, ID, IL, IN, IS, JP, KR, LT, LV, MA, MK, MX, NO, NZ, PH, PL, SG, TN, UA, US, VN, YU, ZA, ZW				
RW: AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR				
CA 2480385	A1	20031002	CA 2003-2480385	20030325
AU 2003226706	A1	20031008	AU 2003-226706	20030325
EP 1490366	A1	20041229	EP 2003-744851	20030325
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK				
BR 2003008785	A	20050111	BR 2003-8785	20030325
CN 1642955	A	20050720	CN 2003-806917	20030325
US 2005171125	A1	20050804	US 2003-509396	20030325
JP 2005525388	T	20050825	JP 2003-578361	20030325
NZ 535959	A	20060526	NZ 2003-535959	20030325
IN 2004MN00462	A	20050218	IN 2004-MN462	20040820
US 7138399	B2	20061121	US 2004-509396	20040924
NO 2004004633	A	20041223	NO 2004-4633	20041027

PRIORITY APPLN. INFO.:	EP 2002-7049	A	20020327
	WO 2003-EP3076	W	20030325

OTHER SOURCE(S): MARPAT 139:292156
GI



I



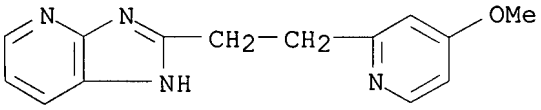
II

AB Title compds. I [wherein R1 = alkoxy; A = alkylene; B = (un)substituted 3H-imidazo[4,5-b]pyridin-2-yl, 9H-purin-8-yl; their salts, N-oxides, and salts of the N-oxides] were prepared as inducible NO-synthase (iNOS) inhibitor for treatment of acute inflammatory diseases and chronic inflammatory diseases of peripheral organs and central nervous system (CNS). For example, II (m.p. = 116-117°) was prepared by cyclocondensation of Me 3-(4-methoxypyridin-2-yl)propionate (preparation given) with 2,3-diaminopyridine in the presence of polyphosphoric acid at

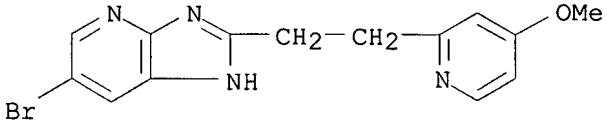
160° for 1 h. Selected invention compds. inhibited iNOS with -logIC50 (M) in the range of 7.03-7.55. Thus, I and their pharmaceutical compns. are useful for treating acute inflammatory diseases, chronic inflammatory diseases of peripheral organs and CNS and cancer (no data).

IT 608880-48-4P, 2-[2-(4-Methoxypyridin-2-yl)ethyl]-3H-imidazo[4,5-b]pyridine 608880-53-1P, 2-[2-(4-Methoxypyridin-2-yl)ethyl]-6-bromo-3H-imidazo[4,5-b]pyridine 608880-54-2P, 2-[2-(4-Methoxypyridin-2-yl)ethyl]-6-iodo-3H-imidazo[4,5-b]pyridine 608880-74-6P, 2-[2-(4-Methoxypyridin-2-yl)ethyl]-6-(4-aminophenyl)-3H-imidazo[4,5-b]pyridine
RL: PAC (Pharmacological activity); RCT (Reactant); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)
(inducible NO-synthase inhibitor; preparation of alkoxypyridines as inducible NO-synthase inhibitors)

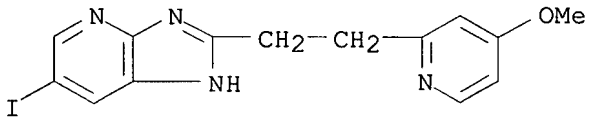
RN 608880-48-4 CAPLUS
CN 1H-Imidazo[4,5-b]pyridine, 2-[2-(4-methoxy-2-pyridinyl)ethyl]- (9CI) (CA INDEX NAME)



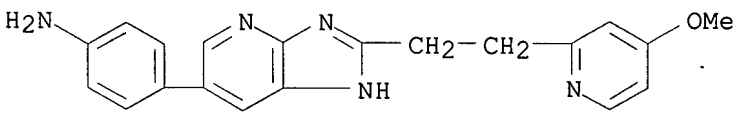
RN 608880-53-1 CAPLUS
CN 1H-Imidazo[4,5-b]pyridine, 6-bromo-2-[2-(4-methoxy-2-pyridinyl)ethyl]- (9CI) (CA INDEX NAME)



RN 608880-54-2 CAPLUS
CN 1H-Imidazo[4,5-b]pyridine, 6-iodo-2-[2-(4-methoxy-2-pyridinyl)ethyl]- (9CI) (CA INDEX NAME)



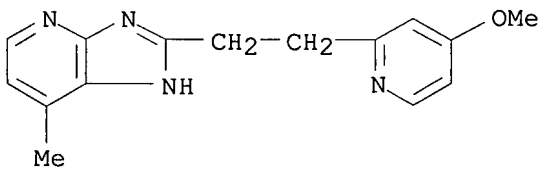
RN 608880-74-6 CAPLUS
CN Benzenamine, 4-[2-[2-(4-methoxy-2-pyridinyl)ethyl]-1H-imidazo[4,5-b]pyridin-6-yl]- (9CI) (CA INDEX NAME)



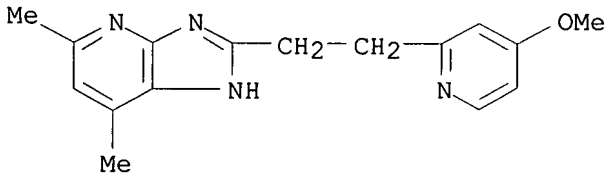
IT 608880-50-8P, 2-[2-(4-Methoxypyridin-2-yl)ethyl]-7-methyl-3H-imidazo[4,5-b]pyridine 608880-51-9P, 2-[2-(4-Methoxypyridin-2-yl)ethyl]-5,7-dimethyl-3H-imidazo[4,5-b]pyridine 608880-52-0P, 2-[2-(4-Methoxypyridin-2-yl)ethyl]-5-methoxy-3H-imidazo[4,5-b]pyridine 608880-55-3P, 2-[2-(4-Methoxypyridin-2-yl)ethyl]-6-nitro-3H-

imidazo[4,5-b]pyridine 608880-56-4P, 2-[2-(4-Methoxypyridin-2-yl)ethyl]-6-trifluoromethyl-3H-imidazo[4,5-b]pyridine 608880-57-5P, 2-[2-(4-Methoxypyridin-2-yl)ethyl]-6-phenyl-3H-imidazo[4,5-b]pyridine 608880-58-6P, 2-[2-(4-Methoxypyridin-2-yl)ethyl]-6-methyl-3H-imidazo[4,5-b]pyridine 608880-59-7P, 2-[2-(4-Methoxypyridin-2-yl)ethyl]-6-(2-methylpropyl)-3H-imidazo[4,5-b]pyridine 608880-60-0P, 2-[2-(4-Methoxypyridin-2-yl)ethyl]-6-cyclohexylmethyl-3H-imidazo[4,5-b]pyridine 608880-61-1P, 2-[2-(4-Methoxypyridin-2-yl)ethyl]-6-(2-phenylethyl)-3H-imidazo[4,5-b]pyridine 608880-62-2P, 2-[2-(4-Methoxypyridin-2-yl)ethyl]-6-(3,4-dichlorophenyl)-3H-imidazo[4,5-b]pyridine 608880-63-3P, 2-[2-(4-Methoxypyridin-2-yl)ethyl]-6-(4-bromophenyl)-3H-imidazo[4,5-b]pyridine 608880-64-4P, 2-[2-(4-Methoxypyridin-2-yl)ethyl]-6-(4-bromobenzyl)-3H-imidazo[4,5-b]pyridine 608880-65-5P, 7-(2-Methoxyethoxy)-2-[2-(4-methoxypyridin-2-yl)ethyl]-3H-imidazo[4,5-b]pyridine 608880-66-6P, 2-[2-(4-Methoxypyridin-2-yl)ethyl]-7-(2-phenylethoxy)-3H-imidazo[4,5-b]pyridine 608880-67-7P, 2-[2-(4-Methoxypyridin-2-yl)ethyl]-7-(2,2,2-trifluoroethoxy)-3H-imidazo[4,5-b]pyridine 608880-68-8P, 7-Hydroxy-2-[2-(4-methoxypyridin-2-yl)ethyl]-3H-imidazo[4,5-b]pyridine 608880-69-9P, 2-[2-(4-Methoxypyridin-2-yl)ethyl]-7-(2-p-tolylethyl)-3H-imidazo[4,5-b]pyridine 608880-70-2P, 2,7-Bis[2-(4-methoxypyridin-2-yl)ethyl]-3H-imidazo[4,5-b]pyridine 608880-71-3P, 2-[2-(4-Methoxypyridin-2-yl)ethyl]-7-[2-(2-pyridyl)ethyl]-3H-imidazo[4,5-b]pyridine 608880-72-4P, 2-[2-(4-Methoxypyridin-2-yl)ethyl]-6-p-tolyl-3H-imidazo[4,5-b]pyridine 608880-73-5P, 2-[2-(4-Methoxypyridin-2-yl)ethyl]-6-(pyridin-3-yl)-3H-imidazo[4,5-b]pyridine 608880-75-7P, 2-[2-(4-Methoxypyridin-2-yl)ethyl]-6-(4-hydroxyphenyl)-3H-imidazo[4,5-b]pyridine 608880-76-8P, 2-[2-(4-Methoxypyridin-2-yl)ethyl]-6-[4-(N,N-dimethylamino)phenyl]-3H-imidazo[4,5-b]pyridine 608880-77-9P, 2-[2-(4-Methoxypyridin-2-yl)ethyl]-6-(4-trifluoromethylphenyl)-3H-imidazo[4,5-b]pyridine 608880-78-0P, 2-[2-(4-Methoxypyridin-2-yl)ethyl]-6-(3,4-dimethoxyphenyl)-3H-imidazo[4,5-b]pyridine 608880-79-1P, 2-[2-(4-Methoxypyridin-2-yl)ethyl]-6-(4-benzyloxyphenyl)-3H-imidazo[4,5-b]pyridine 608880-80-4P, 2-[2-(4-Methoxypyridin-2-yl)ethyl]-6-(4-benzyloxy-3-fluorophenyl)-3H-imidazo[4,5-b]pyridine 608880-81-5P, 2-[2-(4-Methoxypyridin-2-yl)ethyl]-6-(4-cyanophenyl)-3H-imidazo[4,5-b]pyridine 608880-82-6P, 2-[2-(4-Methoxypyridin-2-yl)ethyl]-3H-imidazo[4,5-b]pyridine-6-carboxylic acid methyl ester 608880-83-7P, N-[4-[2-[2-(4-Methoxypyridin-2-yl)ethyl]-3H-imidazo[4,5-b]pyridin-6-yl]phenyl]acetamide 608880-84-8P, N-[4-[2-[2-(4-Methoxypyridin-2-yl)ethyl]-3H-imidazo[4,5-b]pyridin-6-yl]phenyl]benzenesulfonamide 608880-85-9P, 2-[2-(4-Methoxy-1-oxopyridin-2-yl)ethyl]-3H-imidazo[4,5-b]pyridine
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(inducible NO-synthase inhibitor; preparation of alkoxypyridines as inducible NO-synthase inhibitors)

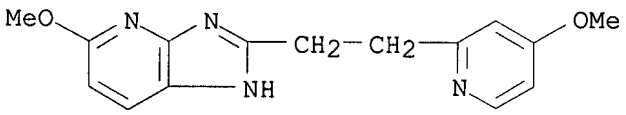
RN 608880-50-8 CAPLUS
CN 1H-Imidazo[4,5-b]pyridine, 2-[2-(4-methoxy-2-pyridinyl)ethyl]-7-methyl- (9CI) (CA INDEX NAME)



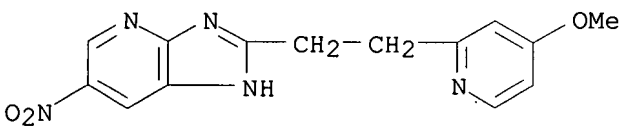
RN 608880-51-9 CAPLUS
CN 1H-Imidazo[4,5-b]pyridine, 2-[2-(4-methoxy-2-pyridinyl)ethyl]-5,7-dimethyl- (9CI) (CA INDEX NAME)



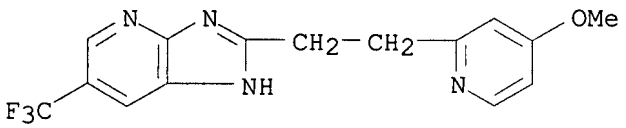
RN 608880-52-0 CAPLUS
CN 1H-Imidazo[4,5-b]pyridine, 5-methoxy-2-[2-(4-methoxy-2-pyridinyl)ethyl]- (9CI) (CA INDEX NAME)



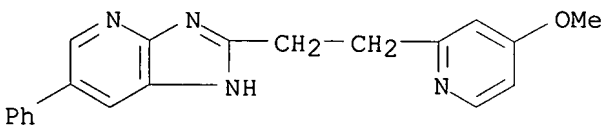
RN 608880-55-3 CAPLUS
CN 1H-Imidazo[4,5-b]pyridine, 2-[2-(4-methoxy-2-pyridinyl)ethyl]-6-nitro- (9CI) (CA INDEX NAME)



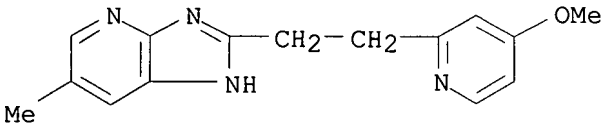
RN 608880-56-4 CAPLUS
CN 1H-Imidazo[4,5-b]pyridine, 2-[2-(4-methoxy-2-pyridinyl)ethyl]-6-(trifluoromethyl)- (9CI) (CA INDEX NAME)



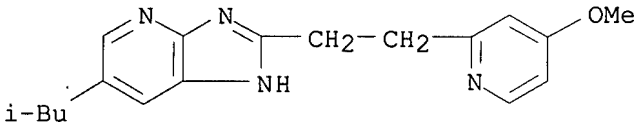
RN 608880-57-5 CAPLUS
CN 1H-Imidazo[4,5-b]pyridine, 2-[2-(4-methoxy-2-pyridinyl)ethyl]-6-phenyl- (9CI) (CA INDEX NAME)



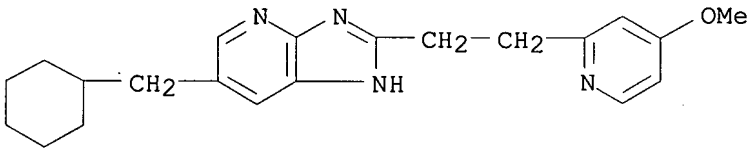
RN 608880-58-6 CAPLUS
CN 1H-Imidazo[4,5-b]pyridine, 2-[2-(4-methoxy-2-pyridinyl)ethyl]-6-methyl- (9CI) (CA INDEX NAME)



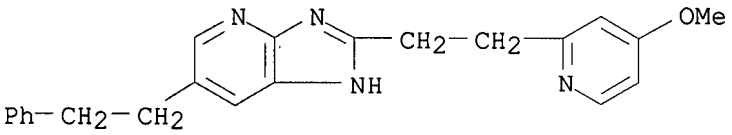
RN 608880-59-7 CAPLUS
CN 1H-Imidazo[4,5-b]pyridine, 2-[2-(4-methoxy-2-pyridinyl)ethyl]-6-(2-methylpropyl)- (9CI) (CA INDEX NAME)



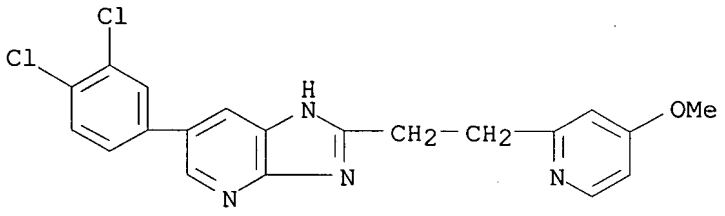
RN 608880-60-0 CAPLUS
CN 1H-Imidazo[4,5-b]pyridine, 6-(cyclohexylmethyl)-2-[2-(4-methoxy-2-pyridinyl)ethyl]- (9CI) (CA INDEX NAME)



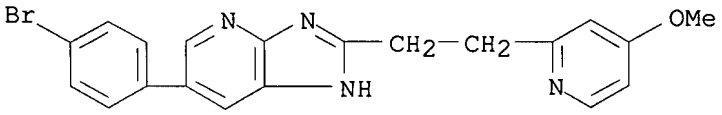
RN 608880-61-1 CAPLUS
CN 1H-Imidazo[4,5-b]pyridine, 2-[2-(4-methoxy-2-pyridinyl)ethyl]-6-(2-phenylethyl)- (9CI) (CA INDEX NAME)



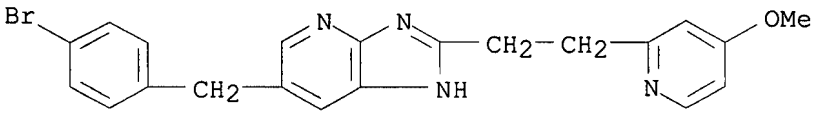
RN 608880-62-2 CAPLUS
CN 1H-Imidazo[4,5-b]pyridine, 6-(3,4-dichlorophenyl)-2-[2-(4-methoxy-2-pyridinyl)ethyl]- (9CI) (CA INDEX NAME)



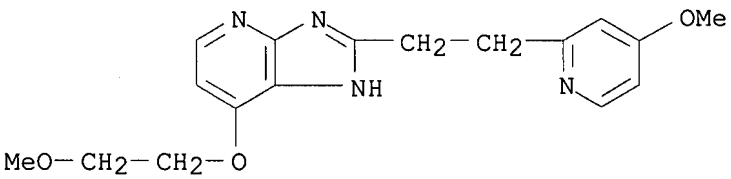
RN 608880-63-3 CAPLUS
CN 1H-Imidazo[4,5-b]pyridine, 6-(4-bromophenyl)-2-[2-(4-methoxy-2-pyridinyl)ethyl]- (9CI) (CA INDEX NAME)



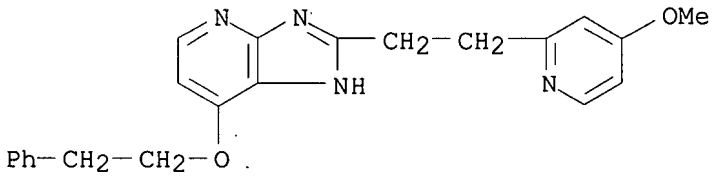
RN 608880-64-4 CAPLUS
CN 1H-Imidazo[4,5-b]pyridine, 6-[(4-bromophenyl)methyl]-2-[2-(4-methoxy-2-pyridinyl)ethyl]- (9CI) (CA INDEX NAME)



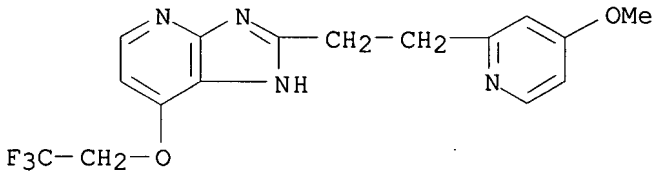
RN 608880-65-5 CAPLUS
CN 1H-Imidazo[4,5-b]pyridine, 7-(2-methoxyethoxy)-2-[2-(4-methoxy-2-pyridinyl)ethyl]- (9CI) (CA INDEX NAME)



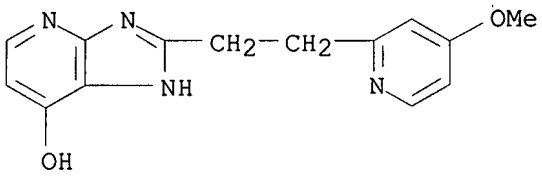
RN 608880-66-6 CAPLUS
CN 1H-Imidazo[4,5-b]pyridine, 2-[2-(4-methoxy-2-pyridinyl)ethyl]-7-(2-phenylethoxy)- (9CI) (CA INDEX NAME)



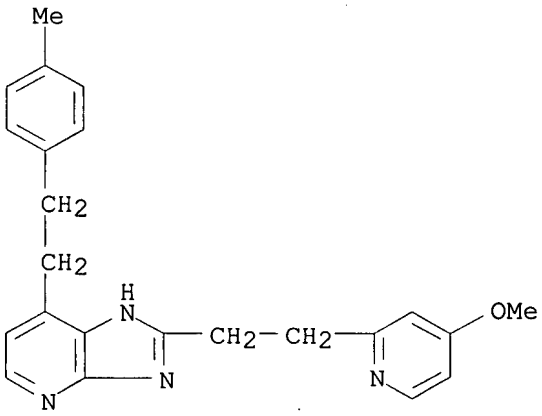
RN 608880-67-7 CAPLUS
CN 1H-Imidazo[4,5-b]pyridine, 2-[2-(4-methoxy-2-pyridinyl)ethyl]-7-(2,2,2-trifluoroethoxy)- (9CI) (CA INDEX NAME)



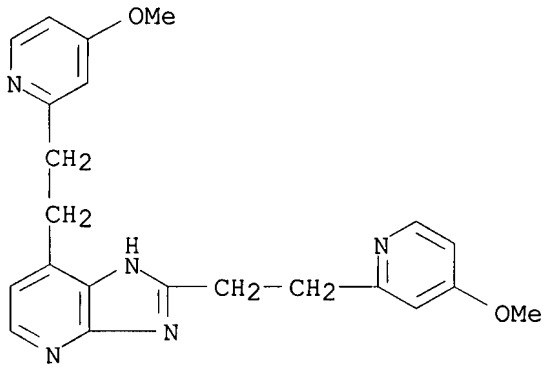
RN 608880-68-8 CAPLUS
CN 1H-Imidazo[4,5-b]pyridin-7-ol, 2-[2-(4-methoxy-2-pyridinyl)ethyl]- (9CI) (CA INDEX NAME)



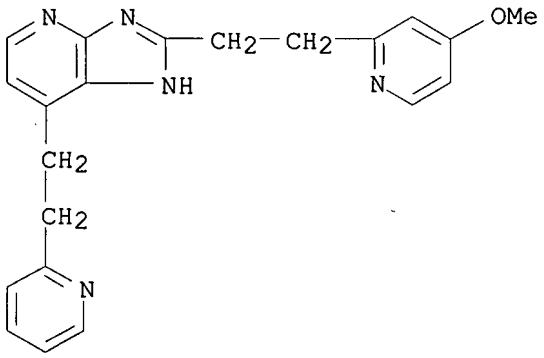
RN 608880-69-9 CAPLUS
CN 1H-Imidazo[4,5-b]pyridine, 2-[2-(4-methoxy-2-pyridinyl)ethyl]-7-[2-(4-methylphenyl)ethyl]- (9CI) (CA INDEX NAME)



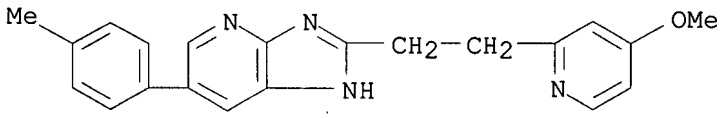
RN 608880-70-2 CAPLUS
CN 1H-Imidazo[4,5-b]pyridine, 2,7-bis[2-(4-methoxy-2-pyridinyl)ethyl]- (9CI) (CA INDEX NAME)



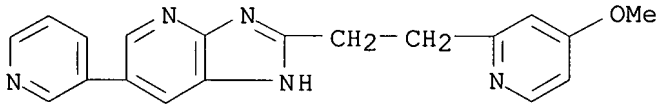
RN 608880-71-3 CAPLUS
CN 1H-Imidazo[4,5-b]pyridine, 2-[2-(4-methoxy-2-pyridinyl)ethyl]-7-[2-(2-pyridinyl)ethyl]- (9CI) (CA INDEX NAME)



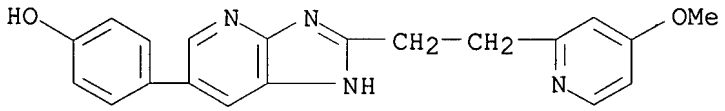
RN 608880-72-4 CAPLUS
CN 1H-Imidazo[4,5-b]pyridine, 2-[2-(4-methoxy-2-pyridinyl)ethyl]-6-(4-methylphenyl)- (9CI) (CA INDEX NAME)



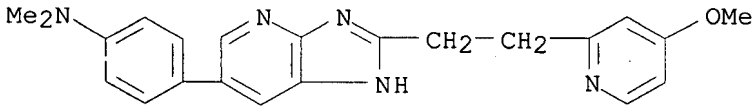
RN 608880-73-5 CAPLUS
CN 1H-Imidazo[4,5-b]pyridine, 2-[2-(4-methoxy-2-pyridinyl)ethyl]-6-(3-pyridinyl)- (9CI) (CA INDEX NAME)



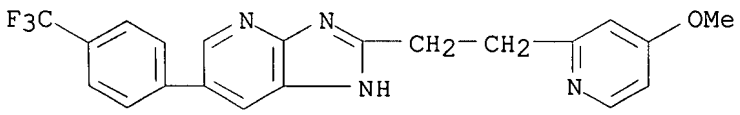
RN 608880-75-7 CAPLUS
CN Phenol, 4-[2-[2-(4-methoxy-2-pyridinyl)ethyl]-1H-imidazo[4,5-b]pyridin-6-yl]- (9CI) (CA INDEX NAME)



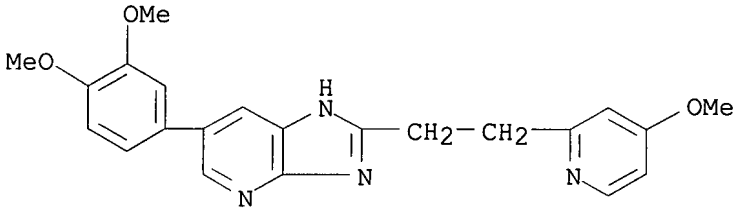
RN 608880-76-8 CAPLUS
CN Benzenamine, 4-[2-[2-(4-methoxy-2-pyridinyl)ethyl]-1H-imidazo[4,5-b]pyridin-6-yl]-N,N-dimethyl- (9CI) (CA INDEX NAME)



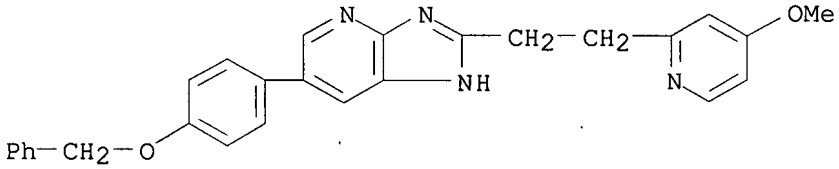
RN 608880-77-9 CAPLUS
CN 1H-Imidazo[4,5-b]pyridine, 2-[2-(4-methoxy-2-pyridinyl)ethyl]-6-[4-(trifluoromethyl)phenyl]- (9CI) (CA INDEX NAME)



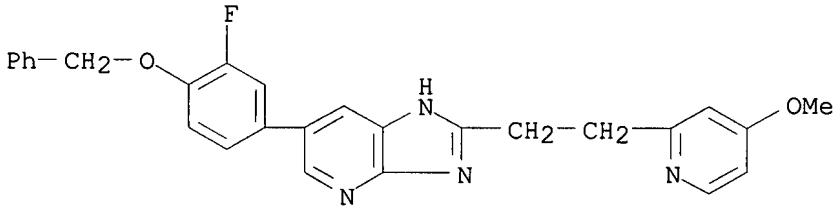
RN 608880-78-0 CAPLUS
CN 1H-Imidazo[4,5-b]pyridine, 6-(3,4-dimethoxyphenyl)-2-[2-(4-methoxy-2-pyridinyl)ethyl]- (9CI) (CA INDEX NAME)



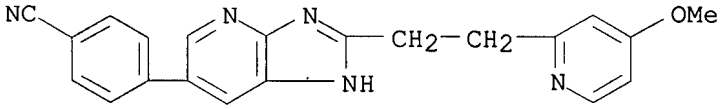
RN 608880-79-1 CAPLUS
CN 1H-Imidazo[4,5-b]pyridine, 2-[2-(4-methoxy-2-pyridinyl)ethyl]-6-[4-(phenylmethoxy)phenyl]- (9CI) (CA INDEX NAME)



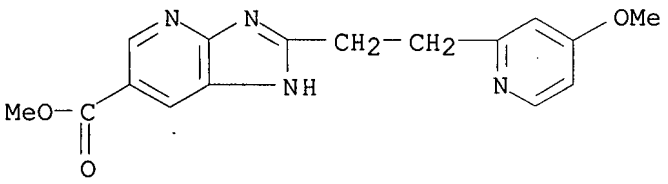
RN 608880-80-4 CAPLUS
CN 1H-Imidazo[4,5-b]pyridine, 6-[3-fluoro-4-(phenylmethoxy)phenyl]-2-[2-(4-methoxy-2-pyridinyl)ethyl]- (9CI) (CA INDEX NAME)



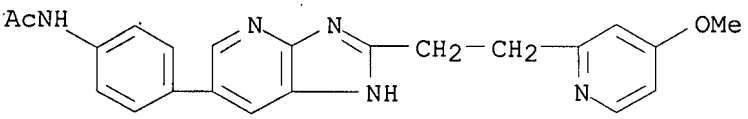
RN 608880-81-5 CAPLUS
CN Benzonitrile, 4-[2-[2-(4-methoxy-2-pyridinyl)ethyl]-1H-imidazo[4,5-b]pyridin-6-yl]- (9CI) (CA INDEX NAME)



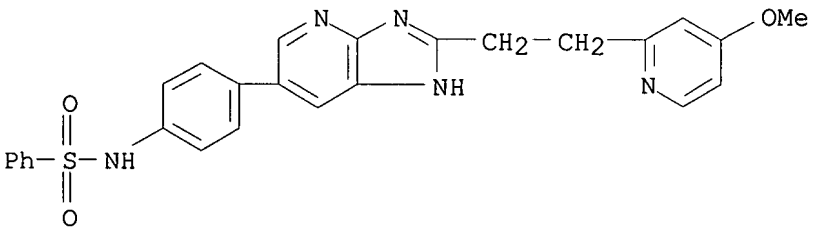
RN 608880-82-6 CAPLUS
CN 1H-Imidazo[4,5-b]pyridine-6-carboxylic acid, 2-[2-(4-methoxy-2-pyridinyl)ethyl]-, methyl ester (9CI) (CA INDEX NAME)



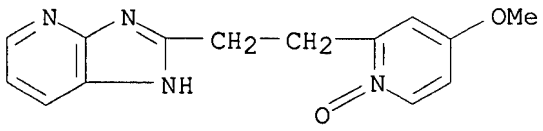
RN 608880-83-7 CAPLUS
CN Acetamide, N-[4-[2-[2-(4-methoxy-2-pyridinyl)ethyl]-1H-imidazo[4,5-b]pyridin-6-yl]phenyl]- (9CI) (CA INDEX NAME)



RN 608880-84-8 CAPLUS
CN Benzenesulfonamide, N-[4-[2-[2-(4-methoxy-2-pyridinyl)ethyl]-1H-imidazo[4,5-b]pyridin-6-yl]phenyl]- (9CI) (CA INDEX NAME)



RN 608880-85-9 CAPLUS
CN 1H-Imidazo[4,5-b]pyridine, 2-[2-(4-methoxy-1-oxido-2-pyridinyl)ethyl]- (9CI) (CA INDEX NAME)



REFERENCE COUNT: 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

=> d his

(FILE 'HOME' ENTERED AT 10:54:18 ON 02 MAY 2007)

FILE 'REGISTRY' ENTERED AT 10:54:30 ON 02 MAY 2007

FILE 'REGISTRY' ENTERED AT 10:55:33 ON 02 MAY 2007
L1 STRUCTURE UPLOADED
L2 5 S L1
L3 133 S L1 FULL

FILE 'CAPLUS' ENTERED AT 10:56:11 ON 02 MAY 2007
L4 7 S L3 FULL

=> log y

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	37.83	210.59

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE ENTRY	TOTAL SESSION
CA SUBSCRIBER PRICE	-5.46	-5.46

STN INTERNATIONAL LOGOFF AT 10:57:13 ON 02 MAY 2007

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NEWS 1		Web Page URLs for STN Seminar Schedule - N. America
NEWS 2	JAN 08	CHEMLIST enhanced with New Zealand Inventory of Chemicals
NEWS 3	JAN 16	CA/CAplus Company Name Thesaurus enhanced and reloaded
NEWS 4	JAN 16	IPC version 2007.01 thesaurus available on STN
NEWS 5	JAN 16	WPIDS/WPINDEX/WPIX enhanced with IPC 8 reclassification data
NEWS 6	JAN 22	CA/CAplus updated with revised CAS roles
NEWS 7	JAN 22	CA/CAplus enhanced with patent applications from India
NEWS 8	JAN 29	PHAR reloaded with new search and display fields
NEWS 9	JAN 29	CAS Registry Number crossover limit increased to 300,000 in multiple databases
NEWS 10	FEB 15	PATDPASPC enhanced with Drug Approval numbers
NEWS 11	FEB 15	RUSSIAPAT enhanced with pre-1994 records
NEWS 12	FEB 23	KOREAPAT enhanced with IPC 8 features and functionality
NEWS 13	FEB 26	MEDLINE reloaded with enhancements
NEWS 14	FEB 26	EMBASE enhanced with Clinical Trial Number field
NEWS 15	FEB 26	TOXCENTER enhanced with reloaded MEDLINE
NEWS 16	FEB 26	IFICDB/IFIPAT/IFIUDB reloaded with enhancements
NEWS 17	FEB 26	CAS Registry Number crossover limit increased from 10,000 to 300,000 in multiple databases
NEWS 18	MAR 15	WPIDS/WPIX enhanced with new FRAGHITSTR display format
NEWS 19	MAR 16	CASREACT coverage extended
NEWS 20	MAR 20	MARPAT now updated daily
NEWS 21	MAR 22	LWPI reloaded
NEWS 22	MAR 30	RDISCLOSURE reloaded with enhancements
NEWS 23	APR 02	JICST-EPLUS removed from database clusters and STN
NEWS 24	APR 30	GENBANK reloaded and enhanced with Genome Project ID field
NEWS 25	APR 30	CHEMCATS enhanced with 1.2 million new records
NEWS 26	APR 30	CA/CAplus enhanced with 1870-1889 U.S. patent records
NEWS 27	APR 30	INPADOC replaced by INPADOCDB on STN
NEWS 28	MAY 01	New CAS web site launched

NEWS EXPRESS	NOVEMBER 10 CURRENT WINDOWS VERSION IS V8.01c, CURRENT MACINTOSH VERSION IS V6.0c(ENG) AND V6.0Jc(JP), AND CURRENT DISCOVER FILE IS DATED 25 SEPTEMBER 2006.
NEWS HOURS	STN Operating Hours Plus Help Desk Availability
NEWS LOGIN	Welcome Banner and News Items
NEWS IPC8	For general information regarding STN implementation of IPC 8

Enter NEWS followed by the item number or name to see news on that specific topic.

* * * * * * * * * * * * * * * STN Columbus * * * * * * * * * * * * * * *

FILE 'HOME' ENTERED AT 10:49:00 ON 02 MAY 2007

=> file reg

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	0.21	0.21

FILE 'REGISTRY' ENTERED AT 10:49:08 ON 02 MAY 2007
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Property values tagged with IC are from the ZIC/VINITI data file
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STRUCTURE FILE UPDATES: 1 MAY 2007 HIGHEST RN 934050-43-8
DICTIONARY FILE UPDATES: 1 MAY 2007 HIGHEST RN 934050-43-8

New CAS Information Use Policies, enter HELP USAGETERMS for details.

TSCA INFORMATION NOW CURRENT THROUGH December 2, 2006

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REGISTRY includes numerically searchable data for experimental and
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experimental property data in the original document. For information
on property searching in REGISTRY, refer to:

http://www.cas.org/support/stngen/stndoc/properties.html

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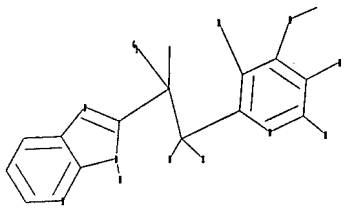
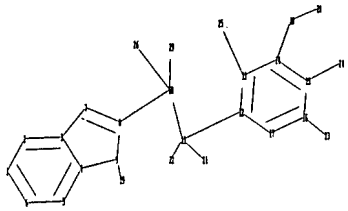
Uploading C:\Program Files\Stnexp\Queries\10573203a.str





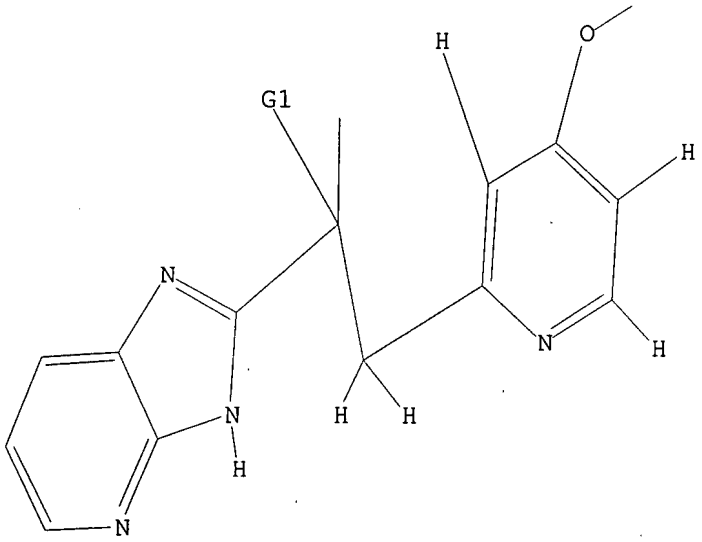
chain nodes :
10 11 18 19 21 22 23 24 25 26 28 29
ring nodes :
1 2 3 4 5 6 7 8 9 12 13 14 15 16 17
chain bonds :
8-10 9-19 10-11 10-26 10-29 11-12 11-21 11-22 13-25 14-18 15-24 16-23
18-28
ring bonds :
1-2 1-6 2-3 3-4 3-7 4-5 4-9 5-6 7-8 8-9 12-13 12-17 13-14 14-15 15-16
16-17
exact/norm bonds :
3-7 4-9 7-8 8-9 10-26 14-18 18-28
exact bonds :
8-10 9-19 10-11 10-29 11-12 11-21 11-22 13-25 15-24 16-23
normalized bonds :
1-2 1-6 2-3 3-4 4-5 5-6 12-13 12-17 13-14 14-15 15-16 16-17
isolated ring systems :
containing 1 : 12 :

G1:C,H

Match level :
1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:Atom 8:Atom 9:Atom 10:CLASS
11:CLASS 12:Atom 13:Atom 14:Atom 15:Atom 16:Atom 17:Atom 18:CLASS 19:CLASS
21:CLASS 22:CLASS 23:CLASS 24:CLASS 25:CLASS 26:CLASS 28:CLASS 29:CLASS

L1 STRUCTURE UPLOADED

=> d l1
L1 HAS NO ANSWERS
L1 STR



G1 C,H

Structure attributes must be viewed using STN Express query preparation.

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SAMPLE SCREEN SEARCH COMPLETED - 13 TO ITERATE

100.0% PROCESSED 13 ITERATIONS 0 ANSWERS
SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS: ONLINE **COMPLETE**
BATCH **COMPLETE**
PROJECTED ITERATIONS: 44 TO 476
PROJECTED ANSWERS: 0 TO 0

L2 0 SEA SSS SAM L1

=> s l1 full
FULL SEARCH INITIATED 10:49:40 FILE 'REGISTRY'
FULL SCREEN SEARCH COMPLETED - 256 TO ITERATE

100.0% PROCESSED 256 ITERATIONS 4 ANSWERS
SEARCH TIME: 00.00.01

L3 4 SEA SSS FUL L1

=> file caplus
COST IN U.S. DOLLARS SINCE FILE ENTRY TOTAL SESSION
FULL ESTIMATED COST 172.10 172.31

FILE 'CAPLUS' ENTERED AT 10:49:47 ON 02 MAY 2007

FILE COVERS 1907 - 2 May 2007 VOL 146 ISS 19
FILE LAST UPDATED: 1 May 2007 (20070501/ED)

Effective October 17, 2005, revised CAS Information Use Policies apply.
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=> s l3 full
L4 1 L3

=> d ibib abs hitstr tot

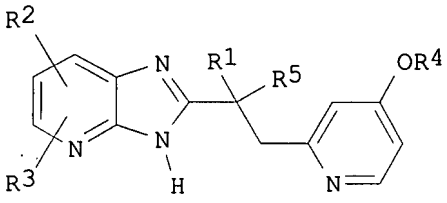
L4 ANSWER 1 OF 1 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2005:300444 CAPLUS
DOCUMENT NUMBER: 142:373835
TITLE: Preparation of imidazopyridine derivatives as inducible NO-synthase inhibitors
INVENTOR(S): Boer, Rainer; Ulrich, Wolf-Ruediger; Eltze, Manfrid; Marx, Degenhard; Graedler, Ulrich; Fuchss, Thomas
PATENT ASSIGNEE(S): Altana Pharma A.-G., Germany
SOURCE: PCT Int. Appl., 31 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2005030768	A1	20050407	WO 2004-EP52370	20040930
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
AU 2004276012	A1	20050407	AU 2004-276012	20040930
CA 2540239	A1	20050407	CA 2004-2540239	20040930
EP 1675853	A1	20060705	EP 2004-787257	20040930
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, PL, SK, HR				
CN 1856492	A	20061101	CN 2004-80027796	20040930
BR 2004015038	A	20061212	BR 2004-15038	20040930
JP 2007507463	T	20070329	JP 2006-530260	20040930

NO 2006001343	A	20060324	NO 2006-1343		20060324
US 2007010549	A1	20070111	US 2006-573203		20060324
PRIORITY APPLN. INFO.:			EP 2003-22042	A	20031001
			WO 2004-EP52370	W	20040930

OTHER SOURCE(S): MARPAT 142:373835

GI



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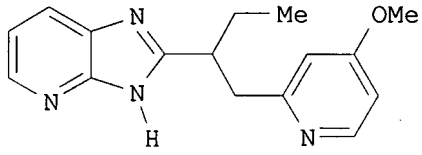


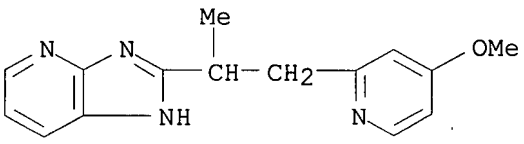
II

AB Title compds. I [R1 = H, alkyl; R2 = H, halo, OH, etc.; R3 = H, halo, alkyl, alkoxy; R4 = alkyl; R5 = alkyl] and their resp. pharmaceutically acceptable salts, are prepared and disclosed as inducible no-synthase inhibitors. Thus, e.g., II was prepared via Wittig reaction of triphenyl-{1-(3H-imidazo[4,5-b]pyridin-2-yl)-propyl}-phosphonium chloride (preparation given) with 4-methoxypyridine-2-carboxaldehyde and subsequent hydrogenation. The activity of II towards inducible NO-synthase was evaluated in an inhibition assay and revealed a -logIC50 value of 7.15 mol/L. I as inducible NO-synthase inhibitors should prove useful in the treatment of acute and chronic inflammatory diseases.

IT 849346-44-7P 849346-45-8P 849346-46-9P
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(preparation of imidazopyridine derivs. as inducible NO-synthase inhibitors)

RN 849346-44-7 CAPLUS

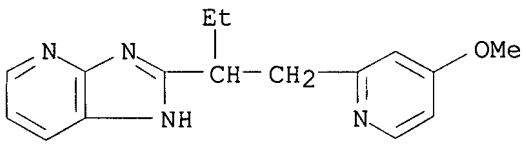
CN 1H-Imidazo[4,5-b]pyridine, 2-[2-(4-methoxy-2-pyridinyl)-1-methylethyl]-, hydrochloride (9CI) (CA INDEX NAME)



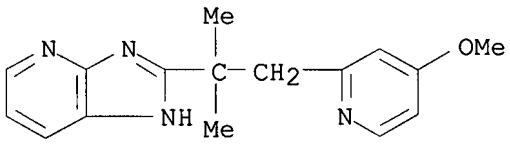
●x HCl

RN 849346-45-8 CAPLUS

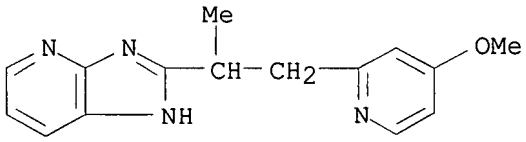
CN 1H-Imidazo[4,5-b]pyridine, 2-[1-[(4-methoxy-2-pyridinyl)methyl]propyl]- (9CI) (CA INDEX NAME)



RN 849346-46-9 CAPLUS
CN 1H-Imidazo[4,5-b]pyridine, 2-[2-(4-methoxy-2-pyridinyl)-1,1-dimethylethyl]- (9CI) (CA INDEX NAME)



IT 849346-55-0P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation of imidazopyridine derivs. as inducible NO-synthase inhibitors)
RN 849346-55-0 CAPLUS
CN 1H-Imidazo[4,5-b]pyridine, 2-[2-(4-methoxy-2-pyridinyl)-1-methylethyl]- (9CI) (CA INDEX NAME)



REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

=> d his

(FILE 'HOME' ENTERED AT 10:49:00 ON 02 MAY 2007)

FILE 'REGISTRY' ENTERED AT 10:49:08 ON 02 MAY 2007
L1 STRUCTURE UPLOADED
L2 0 S L1
L3 4 S L1 FULL

FILE 'CAPLUS' ENTERED AT 10:49:47 ON 02 MAY 2007
L4 1 S L3 FULL

=> log y

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	5.74	178.05
DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE ENTRY	TOTAL SESSION
CA SUBSCRIBER PRICE	-0.78	-0.78

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NEWS 2	JAN 08	CHEMLIST enhanced with New Zealand Inventory of Chemicals
NEWS 3	JAN 16	CA/CAplus Company Name Thesaurus enhanced and reloaded
NEWS 4	JAN 16	IPC version 2007.01 thesaurus available on STN
NEWS 5	JAN 16	WPIDS/WPINDEX/WPIX enhanced with IPC 8 reclassification data
NEWS 6	JAN 22	CA/CAplus updated with revised CAS roles
NEWS 7	JAN 22	CA/CAplus enhanced with patent applications from India
NEWS 8	JAN 29	PHAR reloaded with new search and display fields
NEWS 9	JAN 29	CAS Registry Number crossover limit increased to 300,000 in multiple databases
NEWS 10	FEB 15	PATDPASPC enhanced with Drug Approval numbers
NEWS 11	FEB 15	RUSSIAPAT enhanced with pre-1994 records
NEWS 12	FEB 23	KOREAPAT enhanced with IPC 8 features and functionality
NEWS 13	FEB 26	MEDLINE reloaded with enhancements
NEWS 14	FEB 26	EMBASE enhanced with Clinical Trial Number field
NEWS 15	FEB 26	TOXCENTER enhanced with reloaded MEDLINE
NEWS 16	FEB 26	IFICDB/IFIPAT/IFIUDB reloaded with enhancements
NEWS 17	FEB 26	CAS Registry Number crossover limit increased from 10,000 to 300,000 in multiple databases
NEWS 18	MAR 15	WPIDS/WPIX enhanced with new FRAGHITSTR display format
NEWS 19	MAR 16	CASREACT coverage extended
NEWS 20	MAR 20	MARPAT now updated daily
NEWS 21	MAR 22	LWPI reloaded
NEWS 22	MAR 30	RDISCLOSURE reloaded with enhancements
NEWS 23	APR 02	JICST-EPLUS removed from database clusters and STN
NEWS 24	APR 30	GENBANK reloaded and enhanced with Genome Project ID field
NEWS 25	APR 30	CHEMCATS enhanced with 1.2 million new records
NEWS 26	APR 30	CA/CAplus enhanced with 1870-1889 U.S. patent records
NEWS 27	APR 30	INPADOC replaced by INPADOCDB on STN
NEWS 28	MAY 01	New CAS web site launched

NEWS EXPRESS	NOVEMBER 10 CURRENT WINDOWS VERSION IS V8.01c, CURRENT MACINTOSH VERSION IS V6.0c(ENG) AND V6.0Jc(JP), AND CURRENT DISCOVER FILE IS DATED 25 SEPTEMBER 2006.
NEWS HOURS	STN Operating Hours Plus Help Desk Availability
NEWS LOGIN	Welcome Banner and News Items
NEWS IPC8	For general information regarding STN implementation of IPC 8

Enter NEWS followed by the item number or name to see news on that specific topic.

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FILE LAST UPDATED: 1 May 2007  (20070501/ED)

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=> s inducible NO-synthase activity
         64838 INDUCIBLE
       3522859 NO
        193306 NOS
          1926 NOES
       3634642 NO
                 (NO OR NOS OR NOES)
        103884 SYNTHASE
          5999 SYNTHASES
        104972 SYNTHASE
                 (SYNTHASE OR SYNTHASES)
       2220096 ACTIVITY
        440620 ACTIVITIES
       2405089 ACTIVITY
                 (ACTIVITY OR ACTIVITIES)
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L2           15 L1 AND INFLAMMATOR?

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L3           13 L2 AND PY<2003

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L3   ANSWER 1 OF 13  CAPLUS  COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER:         2002:344598  CAPLUS
DOCUMENT NUMBER:          137:362706
TITLE:                    Effects of inhaled nitric oxide in a mouse model of
                          sepsis-induced acute lung injury
```

AUTHOR(S): Razavi, Habib M.; Werhun, Robert; Scott, Jeremy A.; Weicker, Sean; Wang, Le Feng; McCormack, David G.; Mehta, Sanjay
CORPORATE SOURCE: A.C. Burton Vascular Research Laboratory, University of Western Ontario, London, ON, Can.
SOURCE: Critical Care Medicine (2002), 30(4), 868-873
CODEN: CCMDC7; ISSN: 0090-3493
PUBLISHER: Lippincott Williams & Wilkins
DOCUMENT TYPE: Journal
LANGUAGE: English

AB Although inhaled NO transiently improves oxygenation in patients with acute lung injury, it has not affected clin. outcomes. As well, the effects of inhaled NO on the pathophysiol. features of acute lung injury were not well defined. Therefore, the authors assessed the effects of inhaled NO on the degree of pulmonary inflammation and injury in a mouse model of sepsis-induced acute lung injury. Design: Randomized, controlled animal study. Setting: Research laboratory of an academic institution. Subjects: Male C57BI/6 mice. Interventions: Sepsis was induced by cecal ligation and perforation. At the time of surgery, septic and naive mice were randomized to exposure to either 40 ppm inhaled NO or room air for 24 h before they were killed. Measurements and main results: Sepsis-induced acute lung injury was characterized by increased pulmonary myeloperoxidase (68 vs. 13 mU/mg protein in naive mice), pulmonary 8-isoprostane content (627 vs. 88 pg/mg protein in naive mice), and protein in bronchoalveolar lavage fluid. Inhaled NO exposure in septic mice completely abrogated the septic increases in myeloperoxidase activity and pulmonary 8-isoprostane content but had no effect on bronchoalveolar lavage protein. The induction of sepsis also was associated with an increase in pulmonary inducible NO synthase activity (2.8 vs. 0.4 pmol•min-1•mg-1 protein in naive mice), and inhaled NO attenuated this increase in pulmonary inducible NO synthase activity. Conclusions: Exposure to inhaled NO early in the course of sepsis-induced acute lung injury is associated with reduced pulmonary leukocyte infiltration and less oxidative injury. Decreased lung inflammation and injury with inhaled NO is associated with decreased pulmonary inducible NO synthase activity. Therefore, inhaled NO may have greater clin. benefit if administered earlier in the natural history of acute lung injury in patients.

REFERENCE COUNT: 47 THERE ARE 47 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L3 ANSWER 2 OF 13 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2001:339872 CAPLUS
DOCUMENT NUMBER: 135:282996
TITLE: In vivo microvascular actions of Artemisia vulgaris L. in a model of ischemia-reperfusion injury in the rat intestinal mesentery
AUTHOR(S): Tigno, Xenia T.; Gumila, Elinor
CORPORATE SOURCE: Department of Physiology, College of Medicine, University of the Philippines Manila, Manila, Philippines
SOURCE: Clinical Hemorheology and Microcirculation (2000), 23(2-4), 159-165
CODEN: CHMIFQ; ISSN: 1386-0291
PUBLISHER: IOS Press
DOCUMENT TYPE: Journal
LANGUAGE: English

AB Fractions of aqueous exts. of leaves from A. vulgaris L. (commonly known as mugwort) were tested for their effects on tissue damage brought about by ischemia-reperfusion injury in the rat mesentery. After a midline abdominal incision, the mesenteric area was exteriorized and observed by videomicroscopy. After basal observations of systemic blood pressure, heart rate, venular diams. and leukocyte adhesion along the venules, the

mesenteric artery and vein were occluded for 10 min. Prior to occlusion, treated animals were given a bolus injection of a 1% solution of a hexane-soluble fraction of the aqueous exts., while the control group received saline. Monastral Blue dye was also administered before the occlusion via the jugular vein to assess transendothelial leakage. Hemodynamic and cellular parameters were measured immediately after the release of occlusion and at 10-min intervals thereafter. The exts. had no significant effects on mean blood pressures and heart rates, but appeared to reduce leukocyte adherence and transendothelial leakage while improving flow in the ischemia-reperfused organ. The extract fractions are known to contain yomogin, which has been previously shown to inhibit inducible NO synthase activity, which may explain the anti-inflammatory property of the plant.

REFERENCE COUNT: 27 THERE ARE 27 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L3 ANSWER 3 OF 13 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2000:531501 CAPLUS
DOCUMENT NUMBER: 134:125374
TITLE: Prostaglandins and nitric oxide as molecular targets for anti-inflammatory therapy
AUTHOR(S): Sautebin, L.
CORPORATE SOURCE: Department of Experimental Pharmacology, University of Naples Federico II, Naples, 80131, Italy
SOURCE: Fitoterapia (2000), 71(Suppl. 1), S48-S57
CODEN: FTRPAE; ISSN: 0367-326X
PUBLISHER: Elsevier Science B.V.
DOCUMENT TYPE: Journal; General Review
LANGUAGE: English

AB A review with 62 refs. Nonsteroidal anti-inflammatory drugs are among the most widely used drugs worldwide, in spite of their renal and gastric side effects. Medicinal plants may represent a useful source of new and effective therapeutic agents, particularly considering new findings concerning the mediators of inflammation, such as prostaglandins and NO. The discovery of two isoforms of cyclooxygenase, which catalyzes the conversion of arachidonic acid to prostaglandins, has opened new perspectives in the treatment of inflammatory diseases. Like cyclooxygenase, NO synthase, the enzyme which converts L-arginine to NO, also exists in two isoforms. It appears that the constitutive isoforms of both enzymes (cyclooxygenase-1 and constitutive NO synthase) have a regulatory-physiol. role, whereas the inducible isoforms (cyclooxygenase-2 and inducible NO synthase) are involved in inflammation. A number of medicinal plants have been screened for their ability to inhibit cyclooxygenase-2 and/or inducible NO synthase activity and/or expression.

REFERENCE COUNT: 62 THERE ARE 62 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L3 ANSWER 4 OF 13 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2000:182139 CAPLUS
DOCUMENT NUMBER: 132:319972
TITLE: Inducible NO synthase activity in blood vessels and heart: New insight into cell origin and consequences
AUTHOR(S): Muller, B.; Kleschyov, A. L.; Gyorgy, K.; Stoclet, J.-C.
CORPORATE SOURCE: Pharmacologie et Physico-Chimie des Interactions Cellulaires et, Universite Louis Pasteur de Strasbourg, Illkirch, Fr.
SOURCE: Physiological Research (Prague) (2000), 49(1), 19-26
CODEN: PHRSEJ; ISSN: 0862-8408
PUBLISHER: Institute of Physiology, Academy of Sciences of the Czech Republic
DOCUMENT TYPE: Journal; General Review

LANGUAGE: English

AB A review, with 33 refs. Induction of the inducible form of nitric oxide synthase (iNOS) in the vascular and cardiac tissue by several inflammatory stimuli may result in the production of large amts. of nitric oxide (NO) for a sustained period. Recent data obtained in the rat aorta in which iNOS was induced by lipopolysaccharide (LPS) have demonstrated that adventitial cells represent the main site of NO production Adventitial-derived NO can exert an immediate down-regulatory effect on smooth muscle contraction (via activation of the cGMP pathway) but may also initiate longer lasting effects through the formation of NO stores within the medial layer. One candidate for such NO stores are dinitrosyl non-heme iron complexes. Low mol. weight thiols interact with preformed NO stores and promote vasorelaxation by a cGMP-independent mechanism involving the activation of potassium channels. In the heart, the induction of iNOS is involved in delayed protection against ischemia-reperfusion-induced functional damages. Recent data obtained with monophosphoryl lipid A, a non-toxin derivative of LPS, strongly suggest that iNOS-derived NO in the rat heart does not act as an immediate mediator of the cardioprotection but rather as a trigger of long-term protective mechanisms. Thus, the present data reveal the important role of adventitial cells as a site of iNOS expression and activity in intact blood vessels. The induction of adaptive mechanisms in the heart and the formation of releasable NO stores in blood vessels are examples of long-term consequences of iNOS induction. These new information are relevant for a better understanding of the circumstances in which NO overprodn. by iNOS may play either a beneficial or deleterious role in these tissues.

REFERENCE COUNT: 33 THERE ARE 33 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L3 ANSWER 5 OF 13 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1999:779892 CAPLUS

DOCUMENT NUMBER: 132:73378

TITLE: Effects of natural products on the inhibition of lipopolysaccharide-inducible nitric oxide synthase activity in RAW264.7 cell culture system

AUTHOR(S): Park, Bong-Joo; Cho, Myung-Haing; Kim, Kyeong-Ho; Lee, Sang Kook; Lee, Chong-Soon; An, Gil-Hwan; Mar, Woongchon

CORPORATE SOURCE: Natural Products Research Institute, Seoul National University, Seoul, 110-460, S. Korea

SOURCE: Natural Product Sciences (1999), 5(3), 113-120
CODEN: NPSCFB; ISSN: 1226-3907

PUBLISHER: Korean Society of Pharmacognosy

DOCUMENT TYPE: Journal

LANGUAGE: English

AB Nitric oxide (NO) is a free radical synthesized from L-arginine by nitric oxide synthase (NOS). It is believed that NO is an important mediator in numerous physiol. and inflammatory responses. Particularly, a large amount of NO released from the inducible nitric oxide synthase (iNOS) is mostly associated with inflammatory processes. Overprodn. of NO in these processes including sepsis and autoimmune diseases can have deleterious consequences and pathophysiol. relevance. Therefore, for the discovery of new inhibitory agents against iNOS activity, we have evaluated about 100 kinds of natural products after partition into three layers (n-hexane, Et acetate and aqueous) from 100% methanol exts. to study inhibitory effects on iNOS activity induced by lipopolysaccharide (LPS) in RAW264.7 cells culture system. As a pos. control, curcumin, which is known as an anti-tumor promoter, anti-inflammatory agent as an iNOS inhibitor, was used and showed the dose-dependent inhibitory effect (IC50, 2.5 μg/mL). Among tested fractions, the n-hexane fraction of Cimicifuga heracleifolia (IC50: 9.65 μg/mL), Forsythiae fructus (IC50: 6.36 μg/mL), Saposhnikovia divaricata (IC50: 5.92 μg/mL), and the Et acetate fraction of Chrysanthemum sibiricum (IC50: 2.56 μg/mL),

Gastrodia elata (IC50: 3.46 μg/mL), and the aqueous fraction of Dianthus chinensis (IC50: 6.73 μg/mL), Euonymus alatus (IC50: 6.78 μg/mL), and Mechania urticifoloria (IC50: 8.01 μg/mL) showed strong inhibitory activity against LPS-stimulated iNOS. Especially, the Et acetate fraction of Chrysanthemum sibiricum (IC50: 2.56 μg/mL), which exhibited the strongest inhibition against iNOS, was fractionated with silica-gel column chromatog. These subfractions exhibited dose-dependent inhibition against iNOS activity in the range of 2.59-5.6 μg/mL except for fraction Number 3, 4, 5, 6, 8, 9, and 16. Our study shows that Chrysanthemum sibiricum has the strongest inhibitory effect against iNOS activity and has similar effect to curcumin. Therefore, further studies for the identification of active principles from Chrysanthemum sibiricum and investigation for the mechanism of the inhibition of iNOS by active principles will be performed.

REFERENCE COUNT: 43 THERE ARE 43 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L3 ANSWER 6 OF 13 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1998:475912 CAPLUS
DOCUMENT NUMBER: 129:201968
TITLE: Effects of murine recombinant interleukin-10 on the inflammatory disease of rats transgenic for HLA-B27 and human β2-microglobulin
AUTHOR(S): Bertrand, Viviane; Quere, Sylvie; Guimbaud, Rosine; Sogni, Philippe; Chauvelot-Moachon, Laurence; Tulliez, Micheline; Lamarque, Dominique; Charreire, Jeannine; Giroud, Jean-Paul; Couturier, Daniel; Chaussade, Stanislas; Breban, Maxime
CORPORATE SOURCE: Groupe de Recherche en Pathologie Digestive, Hopital Cochin, Paris, Fr.
SOURCE: European Cytokine Network (1998), 9(2), 161-170
CODEN: ECYNEJ; ISSN: 1148-5493
PUBLISHER: John Libbey Eurotext
DOCUMENT TYPE: Journal
LANGUAGE: English

AB Rats transgenic for HLA-B27 and human β2-microglobulin develop a spontaneous, multisystem, inflammatory disease that resembles human B27-associated disease and that involves the gut mucosa. This model predominantly affects the colon and is characterized by an extensive infiltration of the mucosa by inflammatory cells, largely composed of mononuclear cells. In addition, an increased plasma level of nitric oxide (NO)-derived metabolites was described in this model. Deficiency in the anti-inflammatory cytokine, interleukin-10 (IL-10), leads to the development of colitis in IL-10 knockout mice, suggesting that IL-10 plays a major role in the control of gut inflammation. The objectives of this work were to study the mechanisms of the inflammatory bowel disease (IBD) in HLA-B27 rats and to determine the effects of treatment with IL-10. The 33-3 line of HLA-B27 recombinant rats with established disease was treated in two consecutive expts. with murine recombinant IL-10 for five weeks. Assessment of the effect of this treatment was performed, based on clin., histol. and biol. (myeloperoxidase and inducible NO synthase activities; tumor necrosis factor-α, interferon-γ, CD3, iNOS and β-actin mRNA expression). In 33-3 rats with established disease, mesenteric lymph nodes were hyperplastic, and colonic cellularity and MPO and iNOS activities in the colonic mucosa were increased without any detectable effects of IL-10 administration. IFN-γ and iNOS mRNA were only detected in the colon of transgenic rats. Despite a lack of effect on disease expression, IL-10 strikingly reduced the level of IFN-γ mRNA in gut mucosa. Up-regulation of IFN-γ mRNA suggests that the IBD of HLA-B27 rats is mediated by T-helper 1 lymphocytes. Sustained administration of IL-10, in HLA-B27 rats with established disease, efficiently inhibited IFN-γ mRNA expression but did not influence disease expression: these results

indicate that IFN-γ may exert a critical role at an earlier stage of the disease rather in the maintenance of the lesions.
REFERENCE COUNT: 60 THERE ARE 60 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L3 ANSWER 7 OF 13 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1998:252574 CAPLUS
DOCUMENT NUMBER: 129:23093
TITLE: Tetracycline inhibits the nitric oxide synthase activity induced by endotoxin in cultured murine macrophages
AUTHOR(S): D'Agostino, Pietro; Arcoleo, Francesco; Barbera, Caterina; Di Bella, Gloria; La Rosa, Marzia; Misiano, Gabriella; Milano, Salvatore; Brai, Melchiorre; Cammarata, Giuseppe; Feo, Salvatore; Cillari, Enrico
CORPORATE SOURCE: Institute of General Pathology, University of Palermo, Palermo, 90134, Italy
SOURCE: European Journal of Pharmacology (1998), 346(2/3), 283-290
CODEN: EJPHAZ; ISSN: 0014-2999
PUBLISHER: Elsevier Science B.V.
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Here we investigate the effects of tetracycline base and of a semi-synthetic tetracycline derivative, doxycycline, on the induction of inducible nitric oxide synthase and, hence, on the production of nitric oxide (NO) by lipopolysaccharide in J774 macrophage cultured in vitro. The treatment of J774 line with tetracycline base (6.25-250 μM) or doxycycline (5-50 μM) dose-dependently decreased the lipopolysaccharide-stimulated (1 μg/mL) inducible NO synthase activity and, consequently, nitrite formation. For instance, the inhibition was 70% for tetracycline base at 250 μM and 68% for doxycycline at 50 μM. The inhibitory effect of tetracyclines was due neither to a reduction in the viability of the cells, studied as colorimetric 3-[4,5-dimethylthiazol-2yl]-2,5-diphenyltetrazolium bromide (MTT) reduction assay, nor to an indiscriminate inhibition of total protein synthesis, but to a specific decrease in inducible NO synthase protein content in the cells, as attested by the significant reduction of the expression of inducible NO synthase, assayed by sodium-dodecyl sulfate-polyacrylamide gel electrophoresis (SDS-PAGE) and Western blot. However, no effect of tetracyclines on inducible NO synthase mRNA accumulation could be demonstrated in lipopolysaccharide-stimulated macrophage line, suggesting that the inhibitory effect of tetracyclines on NO synthesis involves post-transcriptional events. The reduction in lipopolysaccharide-stimulated nitrite accumulation produced by tetracyclines was significantly less when they were applied 6 h after lipopolysaccharide and absent 12 h after lipopolysaccharide, indicating that tetracyclines modify an early event in inducible NO synthase activation operating after mRNA transcription. The findings presented in this study indicate that the modulation of NO synthesis is another possible pathway by which tetracyclines may function as anti-inflammatory compds.
REFERENCE COUNT: 39 THERE ARE 39 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L3 ANSWER 8 OF 13 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1997:646568 CAPLUS
DOCUMENT NUMBER: 127:326156
TITLE: Time-dependent actions of nitric oxide synthase inhibition on colonic inflammation induced by trinitrobenzene sulfonic acid in rats
AUTHOR(S): Kiss, Jozsef; Lamarque, Dominique; Delchier, Jean Charles; Whittle, Brendan J. R.
CORPORATE SOURCE: CHU Henri Mondor, INSERM U99, 51 Avenue du Marechal de Lattre, Creteil, 94010, Fr.

SOURCE: European Journal of Pharmacology (1997), 336(2/3), 219-224
CODEN: EJPHAZ; ISSN: 0014-2999
PUBLISHER: Elsevier
DOCUMENT TYPE: Journal
LANGUAGE: English

AB The time-dependent actions following pretreatment or delayed administration of the nitric oxide (NO) synthase inhibitor, NG-nitro-L-arginine Me ester (L-NAME) on colonic inflammation and inducible NO synthase activity following the intrarectal administration of trinitrobenzene sulfonic acid (TNBS) were evaluated in the rat. Intracolonic instillation of TNBS (30 mg in 0.25 mL of 50% ethanol) led to macroscopic injury, an increase of mucosal myeloperoxidase activity and the expression of the Ca2+-independent inducible NO synthase over 8 days. The inflammatory response following TNBS reached maximum levels between 12 and 72 h and then it declined until 14 days. Oral administration of L-NAME (25 mg kg-1 per 24 h in the drinking water) 2 days before TNBS augmented macroscopic damage and increased colonic inducible NO synthase activity 6, 12, 24 and 72 h after TNBS administration. In contrast, when L-NAME was administered 6 h after TNBS instillation, at time of expression of inducible NO synthase, the macroscopic lesions were reduced, as well as the enhanced inducible NO synthase activity, determined, over 72 h. Delayed (6 h after TNBS) administration of L-NAME also attenuated the colonic myeloperoxidase activity provoked by TNBS, after 24 h. This activity was not affected by pretreatment (2 days before TNBS) with L-NAME. These findings indicate that the timing of administration of non-selective NO synthase inhibitors such as L-NAME, in models of colitis is critical to the eventual outcome. Thus, pretreatment with L-NAME, which will inhibit constitutive NO synthase, exacerbates the subsequent damage following challenge. In contrast, delayed administration of L-NAME at the time of inducible NO synthase expression, has a beneficial action on the colonic injury and inflammation. The findings also suggest that during the development of chronic colonic inflammation, a local overprodn. of nitric oxide by the inducible NO synthase in inflamed tissue is involved in the injury.

REFERENCE COUNT: 35 THERE ARE 35 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L3 ANSWER 9 OF 13 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1996:733453 CAPLUS
DOCUMENT NUMBER: 126:98991
TITLE: 2-Amino-4-methylpyridine as a potent inhibitor of inducible NO synthase activity in vitro and in vivo
AUTHOR(S): Faraci, W. Stephen; Nagel, Arthur A.; Verdries, Kimberly A.; Vincent, Lawrence A.; Xu, Hong; Nichols, Lois E.; Labasi, Jeffrey M.; Salter, Eben D.; Pettipher, E. Roy
CORPORATE SOURCE: Central Research Division, Pfizer Inc., Groton, CT, 06340, USA
SOURCE: British Journal of Pharmacology (1996), 119(6), 1101-1108
CODEN: BJPCBM; ISSN: 0007-1188
PUBLISHER: Stockton
DOCUMENT TYPE: Journal
LANGUAGE: English

AB The ability of 2-amino-4-methylpyridine to inhibit the catalytic activity of the inducible NO synthase (NOS II) enzyme was characterized in vitro and in vivo. In vitro, 2-amino-4-methylpyridine inhibited NOS II activity derived from mouse RAW 264.7 cells with an IC50 of 6 nM. Enzyme kinetic studies indicated that inhibition is competitive with respect to arginine. 2-Amino-4-methylpyridine was less potent on human recombinant NOS II (IC50=40 nM) and was still less potent on human recombinant NOS I and NOS

III (IC50=100 nM). NG-monomethyl-L-arginine (L-NMMA), N6-iminoethyl-L-lysine (L-NIL) and aminoguanidine were much weaker inhibitors of murine NOS II than 2-amino-4-methylpyridine but, unlike 2-amino-4-methylpyridine, retained similar activity on human recombinant NOS II. L-NMMA inhibited all three NOS isoforms with similar potency (IC50s 3-7 μM). In contrast, compared to activity on human recombinant NOS III, L-NIL displayed 10 + selectivity for murine NOS II and 11 + selectivity for human recombinant NOS II while aminoguanidine displayed 7.3+ selectivity for murine NOS II and 3.7+ selectivity for human recombinant NOS II. Mouse RAW 264.7 macrophages produced high levels of nitrite when cultured overnight in the presence of lipopolysaccharide (LPS) and interferon-γ. Addition of 2-amino-4-methylpyridine at the same time as the LPS and IFN-γ, dose-dependently reduced the levels of nitrite (IC50=1.5 μM) without affecting the induction of NOS II protein. Increasing the extracellular concentration of arginine decreased the potency of 2-amino-4-methylpyridine but at concns. up to 10 μM, 2-amino-4-methylpyridine did not inhibit the uptake of [3H]-arginine into the cell. Addition of 2-amino-4-methylpyridine after the enzyme was induced also dose-dependently inhibited nitrite production Together, these data suggest that 2-amino-4-methylpyridine reduces cellular production of NO by competitive inhibition of the catalytic activity of NOS II, in agreement with results obtained from in vitro enzyme kinetic studies. When infused i.v. in conscious unrestrained rats, 2-amino-4-methylpyridine inhibited the rise in plasma nitrate produced in response to i.p. injection of LPS (ID50-0.009 mg kg-1 min-1). Larger doses of 2-amino-4-methylpyridine were required to raise mean arterial pressure in untreated conscious rats (ED50=0.060 mg kg-1 min-1) indicating 6.9 + selectivity for NOS II over NOS III in vivo. Under the same conditions, L-NMMA was nonselective while L-NIL and aminoguanidine displayed 5.2 + and 8.6 + selectivity, resp. All of these compds. caused significant increases in mean arterial pressure at doses above the ID50 for inhibition of NOS II activity in vivo. 2-Amino-4-methylpyridine also inhibited LPS-induced elevation in plasma nitrate after either s.c. (ID50=0.3 mg kg-1) or oral (ID50=20.8 mg kg-1) administration. These data indicate that 2-amino-4-methylpyridine is a potent inhibitor of NOS II activity in vitro and in vivo with a similar degree of isoenzyme selectivity to that of L-NIL and aminoguanidine in rodents.

L3 ANSWER 10 OF 13 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1996:595100 CAPLUS
DOCUMENT NUMBER: 125:292514
TITLE: S-Substituted isothioureas are potent inhibitors of nitric oxide biosynthesis in cartilage
AUTHOR(S): Jang, Daniel; Szabo, Csaba; Murrell, George A. C.
CORPORATE SOURCE: Laboratory for Soft Tissue Research, The Hospital for Special Surgery, Cornell University Medical College, New York, NY, USA
SOURCE: European Journal of Pharmacology (1996), 312(3), 341-347
CODEN: EJPHAZ; ISSN: 0014-2999
PUBLISHER: Elsevier
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Nitric oxide (NO) is a multifunctional messenger mol. generated by a family of enzymes, the nitric oxide synthases, and is overproduced in osteoarthritis and rheumatoid arthritis. Chondrocytes are the major native source of NO in diarthrodial joints. Chondrocytic inducible nitric oxide synthase induced by inflammatory cytokines and bacterial cell wall fragments mediates many of the catabolic events in arthritis. Agents which specifically inhibit chondrocyte inducible NO synthase, may thus have a role in the management in arthritis. We evaluated a novel class of potential inducible NO synthase inhibitors, the S-substituted isothioureas, for their ability to inhibit inducible NO synthase activity in cultured bovine chondrocytes and

explants of cartilage from patients with osteoarthritis. Two isothioureas, S-Me isothiourea and S-(aminoethyl) isothiourea were 2-4 times more potent than N G-monomethyl-L-arginine monoacetate, 5-10 times more potent than aminoguanidine and over 300 times more potent than Nω-nitro-L-arginine and Nω-nitro-L-arginine Me ester. The rank order of potency of the NO synthase inhibitors was S-(aminoethyl) isothiourea>S-Me isothiourea>NG-monomethyl-L-arginine>aminoguanidine>N.omega.-nitro-L-arginine = N ω-nitro-L-arginine Me ester. The order of potency was reversed (Nω-nitro-L-arginine Me ester = Nω-nitro-L-arginine >NG-monomethyl-L-arginine = S-Me isothiourea>S-(aminoethyl) isothiourea>aminoguanidine) when evaluating the same compds. ability to inhibit constitutive NO synthase activity in bovine endothelial cells. In comparison to conventional arginine-based analogs, the isothioureas represent a more potent and relatively specific class of inhibitors of inducible NO synthase in cartilage and thus may be beneficial in the management of arthritis.

L3 ANSWER 11 OF 13 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1996:442012 CAPLUS
DOCUMENT NUMBER: 125:132054
TITLE: CD23-mediated nitric oxide synthase pathway induction in human keratinocytes is inhibited by retinoic acid derivatives
AUTHOR(S): Becherel, Pierre-Andre; Le Goff, Liliane; Ktorza, Sandra; Chosidow, Olivier; Frances, Camille; Issaly, Francoise; Mencia-Huerta, Jean-Michel; Debre, Patrice; Mossalayi, M. Djavad; Arock, Michel
CORPORATE SOURCE: Molecular Immuno-Hematology Group, Pitie-Salpetriere Hospital, Paris, 75013, Fr.
SOURCE: Journal of Investigative Dermatology (1996), 106(6), 1182-1186
CODEN: JIDEAE; ISSN: 0022-202X
PUBLISHER: Blackwell
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Retinoids exert various functions including anti-proliferative and anti-inflammatory effects on many cell types including keratinocytes and are widely used in skin diseases, such as psoriasis and acne. We have previously shown that human keratinocytes express low affinity IgE receptor (FcεRII/CD23) when stimulated with interleukin-4. IgE ligates CD23 and induces the production of nitrites (reflecting the mobilization of the nitric oxide [NO]-pathway) and tumor necrosis factor-α by human keratinocytes. Here, 13-cis and all-trans retinoic acid (RA) were shown to reduce the production of nitrites by IgE-activated keratinocytes by 80% in a time- and concentration-dependent fashion. As a consequence, RA derivs. also reduced the production of tumor necrosis factor-α by these cells by 70%. The level of inducible NO synthase activity in activated human keratinocytes was significantly decreased upon treatment of the cells with RA derivs. (inhibition by 60% of the mean inducible NO synthase activity with 13-cis RA, 2 μM). Treatment for 24 h with RA derivs. almost completely abolished transcription of inducible NO synthase-specific mRNA in activated keratinocytes. Therefore, RA derivs. downregulate tumor necrosis factor-α release and the NO-transduction pathway through the inhibition of inducible NO synthase transcription. Together, our data provide evidence for inhibition of the NO-pathway by 13-cis and all-trans retinoic acid on CD23-activated human keratinocytes. These data may clarify the mechanism of the anti-inflammatory activity of RA derivs. in skin diseases.

L3 ANSWER 12 OF 13 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1996:149619 CAPLUS
DOCUMENT NUMBER: 124:257595
TITLE: Role of nitric oxide in induction of

inflammatory fluid secretion by the mucosa of the feline gallbladder

AUTHOR(S): Nilsson, Bengt; Delbro, Dick; Hedin, Lars; Conradi, Nils; Thune, Anders; Friman, Styrbjoern; Wennmalm, Ake; Yan, Zhong-Qun; Svanvik, Joar

CORPORATE SOURCE: Department Surgery, Sahlgrenska University Hospital, Goteborg, Swed.

SOURCE: Gastroenterology (1996), 110(2), 598-606
CODEN: GASTAB; ISSN: 0016-5085

PUBLISHER: Saunders

DOCUMENT TYPE: Journal

LANGUAGE: English

AB Nitric oxide is synthesized from L-arginine and is metabolized to nitrate and nitrite. This study evaluates the effects of a pharmacol. blockade of NO synthesis on fluid transport by the inflamed gallbladder mucosa. Expts. were performed in cats with cholecystitis and in control animals. NO synthase activity was measured in gallbladder tissue; the enzyme was characterized by immunoblotting techniques and localized by immunofluorescence. Fluid transport and release of nitrate and nitrite by the gallbladder mucosa and bile and bile salt secretion from the liver were registered simultaneously in vivo. Fluid secretion in inflamed gallbladders was reversed to a net absorption in response to the NO synthase blockers Nω-nitro-L-arginine and aminoguanidine, and formation of nitrate was reduced. The effects were reversed by L-arginine. Increased levels of inducible NO synthase in inflamed gallbladders were shown by immunoblotting, by immunofluorescence (mainly in macrophages), and by Ca2+-independent [3H]citrulline formation from [3H]arginine. The NO synthase blockers had no effect on gallbladder fluid transport in normal gallbladders. Thus, increased levels of inducible NO synthase activity are shown in inflamed gallbladders, and a pharmacol. blockade of this enzyme blocks fluid secretion and decreases nitrate release from the mucosa.

L3 ANSWER 13 OF 13 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1994:506469 CAPLUS

DOCUMENT NUMBER: 121:106469

TITLE: Differential regulation of constitutive and inducible nitric oxide production by inflammatory stimuli murine endothelial cells

AUTHOR(S): Walter, R.; Schaffner, A.; Schoedon, G.

CORPORATE SOURCE: Dep. Med., Univ. Hosp. Zurich, Switz.

SOURCE: Biochemical and Biophysical Research Communications (1994), 202(1), 450-5
CODEN: BBRCA9; ISSN: 0006-291X

DOCUMENT TYPE: Journal

LANGUAGE: English

AB The murine vascular endothelial cell line sendl expresses both constitutive and inducible nitric oxide (NO) synthases. Interferon-gamma (IFNγ) or endotoxin (LPS) alone inhibited constitutive NO production in a dose and time dependent manner. Addition of L-arginine had no influence on the decrease of NO production caused by IFNγ or LPS. On the other hand, IFNγ and LPS synergized in the induction of high output NO production Successive incubations with IFNγ and LPS in different sequences revealed IFNγ as the time setting signal for the induction of NO synthesis. These results demonstrate that LPS and IFNγ have a direct suppressive effect on constitutive NO synthase while at the same time they strongly activate inducible NO production Thus inflammatory stimuli trigger murine vascular endothelial cells to switch from constitutive to inducible NO synthase activity.

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L2            15 S L1 AND INFLAMMATOR?
L3            13 S L2 AND PY<2003

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